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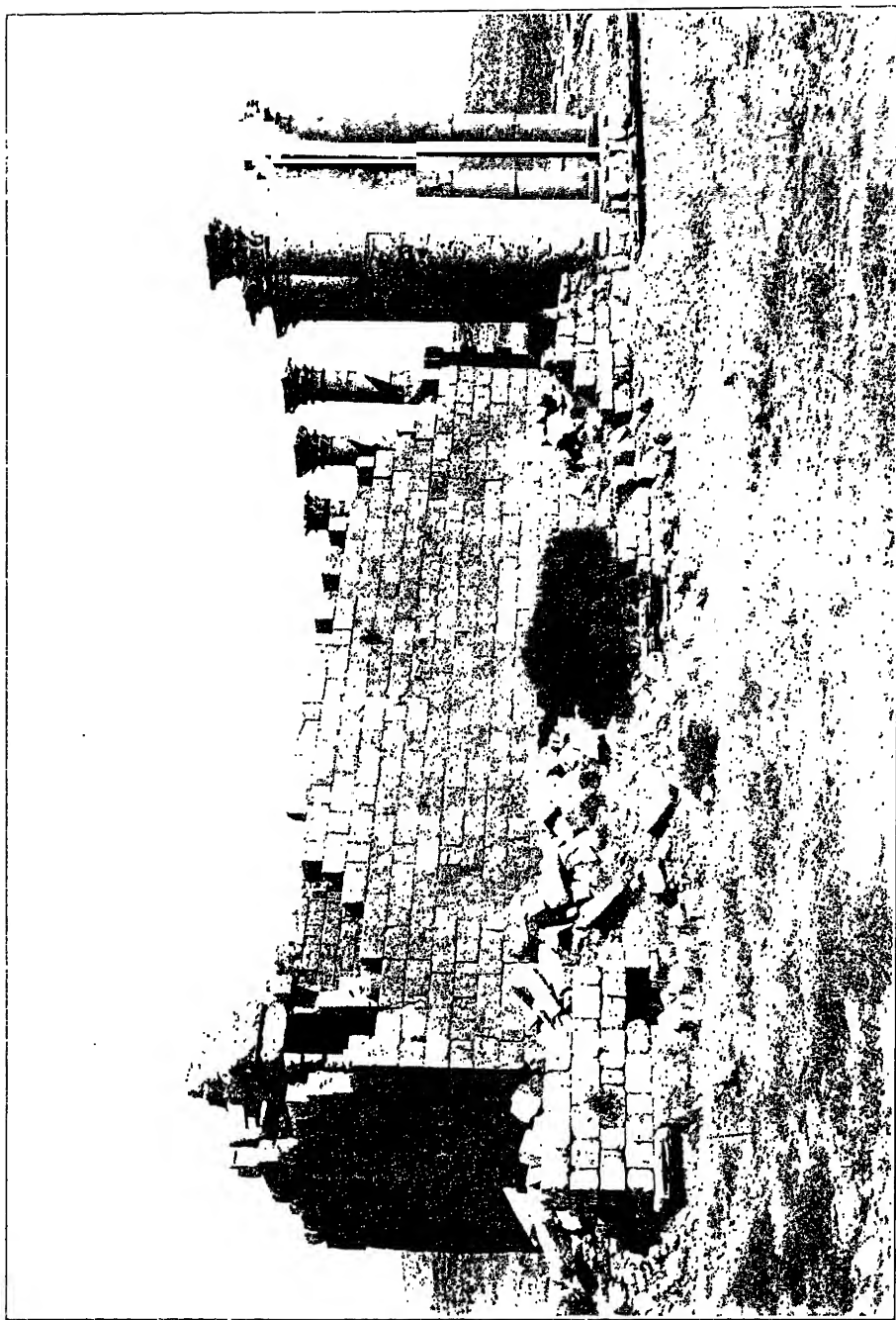
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Temple of Artemis seen from the southwest, before clearing.

## JERASH-GERASA 1930<sup>1</sup>

### A PRELIMINARY REPORT OF THE FIRST TWO CAMPAIGNS OF THE JOINT EXPEDITION OF YALE UNIVERSITY AND THE AMERICAN SCHOOLS OF ORIENTAL RESEARCH

BY

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#### I. THE COURSE OF THE EXCAVATIONS

##### 1. *Purpose and Procedure*

The expedition of Yale University at Jerash, undertaken and carried on largely through the unremitting efforts of Professor B. W. Bacon, began work in the spring of 1928. Mr. J. W. Crowfoot, director of the British School of Archeology at Jerusalem, was in charge, and various English organizations made appropriations, while the staff was American and English. The expedition was, therefore, in every sense a joint undertaking. Its immediate objective was the uncovering of the churches of Jerash. In this the expedition was brilliantly successful. When it began its work, three churches were marked on the current plans of the city and two or three more were thought to exist. At the conclusion of four campaigns in the spring and autumn of the years 1928 and 1929, Mr. Crowfoot was able to present the ground plans and descriptions of twelve churches, a synagog, and various chapels and baptistries.<sup>2</sup>

<sup>1</sup> The following account is merely a report of progress. It is a joint composition, based upon the diary kept by the directors (almost wholly by Dr. Fisher), upon the various records, written, drawn, and photographic, and of course upon direct observation and study. Dr. Fisher is chiefly responsible for the sections on the Artemis Temple, the Pottery, and the Tombs, Dr. McCown for the general description of the campaigns, the account of the periods of occupation, and the section on Coins. Drawings of objects are by Dr. Fisher, the plans by Mr. Labib Sorial and Mr. William Gad, the photographs by Mr. R. W. Hamilton and Mr. D. E. McCown.

<sup>2</sup> *The Churches at Jerash*, British School of Archeology in Jerusalem, "Supplementary Papers," 3, London, 1931.

The resumption of work in 1930 was hindered by the threat of a great locust invasion. It appeared that all available man power in Transjordan must be requisitioned to fight the insect hosts which were advancing to devour the land. However, on going to Jerash, Mr. Crowfoot found there were still numerous laborers who were anxious to secure employment. The task which he had originally undertaken, the excavation of the churches, was practically completed. Some churches still remain, but either covered by modern buildings or otherwise so situated as not at present to be available. Therefore while completing minor operations necessary to the final report on the churches excavated, he made soundings in the court of the Temple of Artemis in order to determine the prospects of excavation on this site. It was discovered that in the Byzantine period the Artemis temenos had become a pottery factory and city dump. No paving stones were found in the court, but it was covered with many feet of ashes, earth, and broken pottery, while kilns were discovered where the great altar had been supposed to be. Part of the base of some structure was uncovered near the center of the court, and a kiln was found surrounded by a circular wall of excellently cut stone.

At this juncture Mr. Crowfoot called Dr. C. S. Fisher, Mr. George Horsfield, Director of the Transjordan Department of Antiquities, and Dr. C. C. McCown, Director of the American School of Oriental Research at Jerusalem, into consultation. Mr. Crowfoot had completed the task he had begun at Jerash and meantime had been asked to direct another expedition in Palestine. Dr. Fisher, who had assisted Mr. Crowfoot at Jerash, had just become Professor of Archeology for the American Schools of Oriental Research, and the trustees of the Schools were willing to contribute his time and that of the Director as well to make appropriations for the continuance of the work. Yale University and the American Schools of Oriental Research contemplated undertaking the excavation of the city as a whole for an indefinite period. Mr. Crowfoot, therefore, decided to withdraw from the expedition and leave it wholly in American hands. Mr. Horsfield secured from the Transjordan Government a permit for the excavation of the whole antiquities site of Jerash including the necropolis, a permit renewable annually for at least five years. Dr. Fisher accordingly organized the forces necessary to carry on the larger task.

Before the World War Jerash had been frequently visited and studied by scholars but without systematic excavation. Gottlieb Schumacher had accomplished perhaps more than anyone else, his plan and descriptions forming the basis for nearly all extant accounts. Puchstein had undertaken a certain amount of superficial excavation in search of inscriptions.

With the institution of the British Mandate, the Transjordan Government

established advisory relations with the Palestinian Department of Antiquities and under the direction of Professor John Garstang, head of the latter Department, a certain amount of excavation was undertaken, chiefly for the purpose of preserving from further destruction this, the most attractive antiquities site in the mandate area. The central colonnaded street was cleared of earth and the many fallen columns, sculptured pieces, and inscriptions were piled at the sides of the road or placed in an improvised museum. The two theatres, the propylea to the Artemis temenos, the propylea church, the Nymphaeum, and the south temple were partially cleared, fallen or dangerous arches and vaults were restored or strengthened, and inscriptions, pieces of statuary, and mosaics were discovered and protected from farther damage. One of the vaults under the Artemis temenos was restored and made into a museum, another into a storage room, and a similar storage room constructed under a terrace of the court of the south temple.

Following suggestions made by Dr. Bacon to Mr. Crowfoot, the reorganized expedition adopted as its immediate objective the clearance of the temple of Artemis. However, it was felt that any such immediate objective must be kept subordinate to the larger project of investigating the entire site. Jerash is perhaps the best preserved provincial city of the Roman Empire to be found in the area which Rome captured from Semitic-speaking peoples. It was an important center of Christian civilization. It had an interesting, if vaguely known, history in Hellenistic times. Its name and its foundation must go back to the pre-Greek period. Therefore its systematic excavation will almost certainly illuminate many dark pages in the history of civilization. Moreover, the city had evidently been most carefully planned with a view to both convenience and monumental effect.<sup>3</sup> Each campaign must keep the larger task fully in view and make contributions toward it. No restricted area or single architectural monument can be fully understood except as a part of the whole.

For the sake of the larger task a map of the entire site including all within the ancient walls and the very extensive necropolis area without is a necessity. Schumacher's map has served most useful ends and, considering the enormous amount of work he did as cartographer, archeologist, epigraphist, and ethnologist, it is remarkably accurate. It is, however, not exact in certain points and naturally is far from complete. As a basis for further study an accurate, large-scale map is essential.

Intensive study of the surrounding country is also necessary. Steuernagel's monumental publication of Schumacher's materials is an indispensable con-

<sup>3</sup> See below, pp. 25 f.

tribution to knowledge of the entire region of Jebel 'Ajlûn, or Gilead.<sup>4</sup> But this invaluable material must be checked from the standpoint of Gerasa's relations to the surrounding country. The various local sources of wealth, agricultural, pastoral, and mineral, must be explored. The commercial connections, especially the Roman roads, and the extent of contemporary settlements must be known. In other words, a careful and exhaustive regional study is demanded in order adequately to interpret Gerasa itself.

The monumental temple of Artemis, often erroneously called the Temple of the Sun on account of a mistake made by Irby and Mangles, early explorers of the place, is difficult from some points of view and easy from others.<sup>5</sup> It stands out as the center of the city plan and is still the most conspicuous object among magnificent ruins. All but one of the twelve great columns of its portico are still in place. Some of them rock with the gusty winds that constantly blow over the 'Ajlûn highlands, but their foundations are so solid and they are so delicately poised that the many earthquakes to which Transjordan is subject have not overthrown them. The walls of the cella stand to more than half their height. On three sides two rows of standing column drums mark the line of the colonnades which surrounded the temple court. It would appear that the plan of the temple and its surroundings could be easily determined and architectural reconstructions on paper quickly made.

In reality the task has proved far from simple. The portico of the temple was covered with stones and rubbish, a wall built by the Arabs to turn the temple into a fortress followed the margin of the podium for the greater part of the way around, the entrance to the cella was walled to a height of some three meters and the interior piled high with stones fallen from the walls and roof. Worst of all was the great mass of rubbish covering the court and colonnades to a depth which at the western end approximates the height of the columns, six meters. To clear the entire temenos down to its original level would mean moving some 20,600 cubic meters of earth and a great mass of stones, some of the column drums weighing as much as two or three tons.

In excavating such a site various procedures are possible. Probably the most scientific method is to start at the outer margin of the antiquities area, dumping on land which demonstrably contains nothing ancient, and then to proceed inwards, still carting the earth outside when necessary, but hoping

<sup>4</sup> Steuernagel-Schumacher, *Der 'Adschlûn*, Leipzig, 1927 = *Zeitschrift des Deutschen Palästina-Vereins*, 1924, pp. 191-240; 1925, 1-144, 201-392; 1926, 1-167.

<sup>5</sup> See below, pp. 22-30.

also to find areas within the city which, after careful excavation and mapping, may be filled in again and used as dumps for débris from areas which contain remains of such artistic or archeological interest that they must be left uncovered. This method, however, demands large initial outlay without apparent return. In the case of Jerash the size of the site and the distances from the chief monuments to open areas outside the walls are so great that this method promised to be both slow and expensive. After much debate it was, therefore, determined to excavate areas around the temenos of Artemis and, when they had been adequately mapped and studied, cover those which possessed no permanent interest with the débris from the temple area.

The next problem was to select the proper place in which to begin. Some spot had to be found on which to dump the first basketful of earth. If possible, nothing must be dumped where something beneath will eventually have to be excavated and so require its removal. As the whole of the area had apparently been inhabited, there was practically no unoccupied space. There was no spot on which to put the fulcrum. As a final resort it was decided to begin at the southern center of the temenos and to dump on the heaps left from the excavation of the Fountain Court churches until such time as a small area could be cleared as a starting point for more permanent dumps. Walls were built around all dumps to prevent them spreading over unexcavated areas.

The land slopes away from the site of the temple to the north, east, and south. To the west it slopes up, to the east down to the great colonnaded street, in both directions so sharply that it is impossible to use a railway. To both north and south there is just sufficient fall to make it possible to build up dump heaps fully as high as safety and appearances allow. The area chosen presented the advantages that the new excavations could continue from the western wall of St. Theodore's church, which was already excavated, and also that it gave access to the temenos near its center and just opposite the temple itself.<sup>6</sup> It was, therefore, convenient for the removal of the rubbish from the temple area. It proved also to contain much interesting archeological material.

The selection of this site involved long and tedious discussions with the owners of the land, very kindly undertaken by Mr. Horsfield on behalf of the expedition and the government. Unfortunately the owners had been led to regard the enterprise as a gold mine and demanded a price of £5 a dunam, or \$100 an acre, for their land. As little land changes hands by sale, it was at first difficult to establish a just price. On the one hand it had to be

<sup>6</sup> See Plan III.

remembered that there was little other land for sale and that the antiquities site contained some of the best plots available in the town. The sale of his land would merely reduce the ordinary peasant's productive capacity and the money would probably go to buy a new wife. Some compensation had to be allowed for the fact that the sale was forced. On the other hand the expedition could not afford to set a precedent of a price too high. After many inquiries it was decided that it was reasonable to offer £2 a dunam plus £1 compensation, making \$60 an acre. To this the owners did not agree and the matter, therefore, had to be turned over to the due process of law provided by the antiquities ordinance.

Along the Roman roads approaching Jerash are remains of numerous mausolea and sarcophagi. The suitable rock-faces are honeycombed with tombs. The excavation of some of these was almost certain to bring to light objects of artistic value and to illuminate the history of the city. For this reason the necropolis was included in the renewed excavation permit and a number of tombs were opened.

In order to understand the plan of the city and to interpret the meaning and determine the relations of the buildings excavated, soundings were undertaken at certain points. In Jerash there are innumerable ruins appearing just above the surface which pique the interest and arouse the curiosity of the excavator. They stimulate the hope of answers to some of the many questions which the imperfectly known history of the city raises. While a curb must be put upon the natural tendency to dig here and there wherever some archeological gold mine might seem to be indicated, a certain number of soundings systematically planned were believed necessary to the intelligent integration of the immediate task with the larger, city-wide project.

## 2. *The Campaigns of 1930*

During the spring campaign the staff consisted of Dr. C. S. Fisher, Mr. R. W. Hamilton, who had already worked with Mr. Crowfoot in Jerash, and Mr. Labib Sorial and Mr. William Gad, two of Dr. Fisher's pupils who have had experience in numerous expeditions. The Director of the American School of Oriental Research had unfortunately already made various commitments of time and energy before the work was undertaken, and had to be satisfied with weekly or semi-weekly trips over the eighty-five miles of indifferent roads between Jerusalem and Jerash, carrying on each trip various needed supplies.

In the autumn the staff consisted of Dr. Fisher, Mr. T. D. McCown and Mr. D. E. McCown, both of whom had already worked on other expeditions, Mr. Labib Sorial, and Mr. William Gad. The Director of the School, though

necessarily giving time to building operations in Jerusalem, to the regular lectures of the autumn term, and to the School field trips, was able to spend some time each week in Jerash, and, when Dr. Fisher was called upon to join the expedition of the Baghdad School at Tell Billa, took charge during the last eighteen days of the campaign.

### *The Spring Campaign*

The staff of the expedition went from Jerusalem to Jerash on May 19 after several days spent in laying plans and gathering equipment, most of which had to be secured in Jerusalem. Some old equipment already in Jerash was purchased from the British School, and through Mr. Crowfoot's kindness the expedition enjoyed the use of the surveying instruments belonging to that School.

Dr. Fisher and the Director of the School drove to 'Ammân, where by previous arrangement they met Mr. Crowfoot, who had just left Jerash, and Mr. Horsfield, and were introduced to Mr. A. P. Mitchel of the Transjordan Survey and Mr. A. L. Kirkbride, treasurer of the Transjordan Government, as well as to the head of the Department of Antiquities. Mr. Mitchel very kindly agreed to assist in the mapping of the city, furnishing angle iron to be used as triangulation station markers, and loaning equipment. As a part of the general survey of Transjordan he later sent a considerable staff to survey the city, thus saving the expedition a large amount of time and money. Into the map made by the survey department the more detailed maps of the expedition are later to be fitted.

Mr. Kirkbride cordially agreed to the continuance of a favor which Mr. Crowfoot had enjoyed. Money for the expenses of the expedition at Jerash is deposited with the treasury at 'Ammân and then paid on requisition by the local fiscal agent in Jerash. This saves a long, expensive, and possibly dangerous journey with the biweekly payroll from the bank at 'Ammân to Jerash. The expedition has every reason to be grateful to various government officials, including especially Mr. Horsfield and Mr. R. G. Head, Inspector for the Department of Antiquities, for many courtesies and much highly valued assistance.

The second day was spent in getting the camp into condition and, though it was still far from finished, on the following day excavation was begun. Mr. Horsfield loaned rails and cars of 60 cm. gauge, but there was some delay in laying the track, as nuts and bolts had to be purchased in Jaffa. The work began in the area marked A 23 and R 8 on the plan, spread westward to Cistern 1, then to the west, north, and east through various buildings, of which only the well-built foundations remained. The walls, which had

to be mapped, and still more under A 2 a mosaic, part of which had to be lifted, delayed the preparation of a place for the dump. The railway, which had been laid out to the south of St. Theodore's over the dump from the churches, was gradually extended northward and a branch was run from it southward over A 14. Eventually it reached the peribolos of the Artemis temenos and a line was run eastward between the two rows of columns of the surrounding colonnade. The work on the temple area itself began just three weeks after the start of the expedition.

Various difficulties impeded progress. Under A 2 two large caves were found. They had probably been tombs of the Hellenistic period. A large stone door such as is common in tombs was found nearby. Both contained potsherds of Roman date, but nothing earlier. Under A 24 a large cave which had last been used as an oil press had to be cleared. Two late furnaces also delayed the progress of clearance. Men had to be detailed to level off an old dump which lay along the stream and impeded the irrigation and cultivation of a garden and orchard. In the temple area it was discovered that the ownership of a piece of land was uncertain and that for the time being excavation could not extend far to the east.

Work was continued on the temple colonnade and on the houses west of St. Theodore's. A small number of men was set to work on the southwest gate of the city, and for the last few days a gang worked under one of the Egyptian foremen on tombs along a rock scarp outside the walls south of the southern temple. Excavation came to an end on June 29. The camp was closed and the staff returned to Jerusalem on July 3.

### *The Autumn Campaign*

Dr. Fisher with part of the staff and two lorries of lumber, supplies, and equipment returned to Jerash on September 25. The expedition buildings erected by Mr. Crowfoot in 1928 had to be reroofed and a darkroom and a sleeping room added. A fine large tent and other equipment were borrowed, part from the joint expedition of Xenia-Pittsburgh Theological Seminary and the School and part from the Danish Shiloh expedition, which has stored some of its effects at the School.

Excavation began on Saturday, October 4, Friday being the recognized rest day. It continued until Thursday, November 27, and the staff left on Wednesday, December 3, after putting the buildings in condition for the winter. The work already begun on the colonade about the temple area was continued and gradually extended until the colonnade was cleared to its eastern end and a little beyond, more than two-thirds of its entire length.

The clearance of the city buildings west of St. Theodore's was continued northward to the temple area and southward to the edge of a cultivated field. The most interesting discoveries were a large ecclesiastical building under A 42 and A 46 with an excellent mosaic partially destroyed by a large pottery kiln, and a small temple at the extreme southern end under A 32.

Within a fortnight from the start of operations the railway was run into the temenos close to south wall of the temple and curved eastward toward its front, where it was desired to follow up Mr. Crowfoot's soundings. Meantime a group of Circassians was employed to clear the portico of the great stones which encumbered it. A beginning was made on the débris within the cella, and Dr. Fisher with the help of other members of the staff planned the temple itself, measuring the blocks in the substructures, podium, and walls as well as the column drums and capitals so that every stone can be drawn to scale. Eventually the long passage which ran under the north corridor was entirely cleared throughout almost its entire length, and the south corridor for two-thirds of its length down to below the level of its stolen pavement. The débris lying between the parapets which bordered the great stairway was removed, and further progress made at the spot where the great altar is supposed to have stood. Unfortunately this task could not easily be completed from the south and was not finished when the campaign closed.

For a time a small group worked on the street running west from the south tetrapylon, discovering what is possibly a north-south colonnaded street running east of the church of John the Baptist. This little sounding was made partly to determine the city plan, and partly to learn whether the neighborhood was suitable to use for dumping.

The problem of disposing of the great mass of rubbish from the temple area continued to be troublesome. The area south of the temenos revealed buildings and caverns which took time to excavate and plan so that the clearance of the temple itself was correspondingly delayed. These buildings are far from uninteresting and many valuable small objects are discovered in them. Indeed the clearance of the accumulated rubbish from the temple area would be a dull and tiresome task were it not for these by-products, so to speak, of the main task.

On October 25 a small gang under an Egyptian foreman was set to work on the tomb area in which a small beginning had been made at the end of the previous campaign. Four tombs had been cleared in the summer. Eight more, some of them quite large, were opened during the month of work that followed.

In the temenos of Artemis two small trenches were cut through the north

colonnade in order if possible to determine the plan and character of the structure. At the end of the campaign the south colonnade and the area adjacent had been cleared of the kilns and the intrusive walls found at the points marked 6-9, R 10-14, and A 31, 32, 50, 51, and the whole filled in again to the probable height of the ancient pavement (see Pl. 7). The filling in was necessary, partly for the sake of appearances but still more in order that the winter rains should drain off and not flow into the museum, which is in the vault under the southeast corner of the temenos.

## II. PERIODS OF OCCUPATION

Since much still remains to be done and numerous problems are unsolved even in the small area which has been attacked, an account of results must necessarily be tentative, incomplete, and subject to revision. First the outcome of the work done in the various areas will be described and then the small objects of various kinds.

The most complicated part of the enterprise is the city area south of the temenos of Artemis and west of St. Theodore's church. At present at least six different strata of occupation seem to have been found. Possibly more are to be assumed, but it may not be possible to separate them distinctly. At the top is evidence of Arab occupation, seen in coins and pottery. Next come at least two Byzantine levels, then two of the Roman period, and finally at the bottom very slight indications of Hellenistic occupation. In no place, however, are all of the six strata found one above another. Jerash was not completely destroyed by war, fire, or earthquake at any time during the period covered by the discovered remains. If it was destroyed, as Josephus says,<sup>7</sup> during the Jewish War, no evidence of that destruction has yet come to light. None of the great earthquakes which evidently overthrew its large buildings caused the population to abandon the city, even for a short period. There are, therefore, few spots where successive lines of demarcation between strata can be clearly seen. However, at several points more or less complete series were found.

The area in which the spring campaign began contained the first private houses to be excavated in Jerash. It was the more interesting as one room was carpeted with a tasteful mosaic, and underneath a part of the area was a large cave.

The second day of excavation the men came upon a structure with massive walls and a slab roof which proved to be a cistern. Cistern 1 was a large rectangular structure the roof of which had been supported on arches resting

<sup>7</sup> *BJ*, IV, 488 f. (9, 1).

on a central row of columns capped with Attic column bases turned upside down. The original masonry of the cistern had been heavy and strong, dating probably from the late part of the Roman period, ca. 300 A. D. Part of the cistern had later been turned into a dwelling and part of the pottery in the débris that filled it was from Arab times, some of it possibly as late as 1000 A. D., but most of it was Byzantine. The inscribed Arab lamp (Fig. 1) and the large pail-like bowl described below are samples of the pottery found (see Pl. 13, x 20). There were several lamps of Byzantine type.

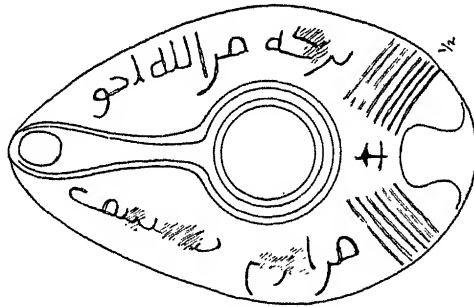


Fig. 1. Arabic lamp with inscription

None of the coins found in the cistern was in good condition. One which bears on the obverse a head with a mural crown and on the reverse apparently a standing figure belongs to the Roman period certainly and may be tentatively assigned to the second or third century. Another which has on the obverse a laureate bust with the inscription . . . . B/GALLVSPEAVG and on the reverse a figure standing with right knee raised and the left hand holding a spear or staff resembles very closely a coin of Trebonianus Gallus (251-54) struck at Ptolemais.<sup>8</sup> Both were found at the level of the column bases which supported the roof, and they prove nothing as to the date when the cistern was filled in. Of the other coins found in the cistern only one bears any identifying marks and that one, found on the floor, has the familiar *M* which distinguishes Byzantine coins from the time of Anastasius (498) onwards.<sup>9</sup> One may conclude, therefore, that the cistern was probably in use after 500 A. D. The earlier coins must have been washed in or thrown in with earth from lower strata.

Beneath the surface north, east, and west of the cistern were foundation walls of buildings of superior character. Early in the spring campaign it

<sup>8</sup> Cohen, *Monnaies frappées sous l'empire romain*, V, p. 260.

<sup>9</sup> Wroth, *Imp. Byz. Coins in the Brit. Mus.*, I, xiii.

was discovered that steps led down from Room A 1, just north of the big cistern, to A 2, which proved to have a mosaic floor with inscription.<sup>10</sup> The room had been spanned by a single arch running across the center and carrying a roof or ceiling of wood, for the interval between the side walls and the arch was too great to be spanned by stone slabs. There were, moreover, on the mosaic traces of the burning of the wooden roof. Rooms A 4 and A 12 had similar arches.

The mosaic room belonged to a large house which included rooms A 1, 2, 4, 5 and 12. Apparently the partition wall between A 2 and A 4 was a secondary construction and A 2 and A 4 had originally been one, A 4 being a sort of open loggia. The house was entered through A 1, in which some of the original slab pavement was found. The western end of A 1 had been a small room entered from A 4. A 8 and A 14 formed part of another house of the same period.

A 8 appears to have been a baker's shop opening on the street. In this room was an oven (Pl. 1) built throughout of bricks, mostly of re-used fragments except at the door where a squared block re-inforced each side. These were faced inside with half discs to prevent the heat from disintegrating the limestone. Around the inside was a series of eight little columns made of terra-cotta discs and in the center was a thick pedestal of the same material. There was a depth of 15-20 cm. of fine white and gray wood ash over the floor just inside the door, but behind was only a white mass of limestone débris. The sides of the oven were smoked only as high as the little columns. It is obvious, therefore, that the oven had a floor, probably of tiles, resting on the central pier and the side columns. On this the objects to be baked were placed, the fire underneath. An arched door gave access to the upper portion and a similar door to the furnace below.

Below the slab floor of A 8 and A 14 were rough walls and a rock cutting. Below the mosaic of A 2 was an entrance to large caverns, which doubtless were originally tombs. There was a well-cut entrance shaft, the opening itself being rabbeted to receive a coverstone. Near the top of the shaft were a well-made Roman water jar of the inverted egg type and other pieces of pottery of the Roman period. The caves themselves were filled with débris which contained numerous potsherds of Roman type, including many of fine buff paste with brilliant red slip resembling Samian ware.

For the dating of these buildings the mosaic, the pottery, the coins, and the succession of structures themselves have to be considered. The buildings had been re-used at a higher level, for both A 5 and A 12 had door sills of

<sup>10</sup> See below, p. 43.

long single slabs higher than the original floor, that in A 12 directly above the earlier one. The upper parts of the walls were cruder than the lower. There were, therefore, three or four levels of occupation: the cave, later possibly the rough walls of the lower level, third the rectangular buildings in their prime, and fourth their re-use. A considerable amount of pottery found in A 14 was of late Byzantine type. There were fragments of large zîrs, or storage jars of black or dark gray ware with comb decoration in curves and geometrical patterns, and other bowls and jars of the same ware decorated with bands of cuneiform impressions made by working the end of a square object back and forth across the wet surface. Other vessels of red ware were decorated with faint white bands. There was also red ware with shallow horizontal ribbing. In Room A 5 a fine bronze jug or bottle was found (Pl. 14). A broken piece of an hexagonal column with a Latin inscription was recovered from the filling of the door connecting Rooms A 8 and A 14 (see p. 45).

Numerous coins were found, especially under Room A 1 and A 2 and in the caves beneath. Several were found in a jar in Cave 2. Most of the coins recovered were the small *centenionalis*, and were often so worn that complete identification was impossible. However, the inscription VOT X MVLT XX within a wreath on the reverse of several shows that they belong probably to the fourth or fifth century, when this legend was common. Two certainly and probably two others were from the time of Theodosius (375-92). One bore the name of Arcadius (395-408). Several still bore a part of a cross though all the rest was effaced. The oldest coin found in this region was one of Macrinus (217-19), which came to light below the floor of A 1, while the latest, an Arab coin, was found above the floor. Under the floor of A 1 was a single Byzantine coin of the familiar type bearing an *M*.

It would appear, then, that there were originally tombs here before the building of the Roman city. They must have been thoroughly plundered and perhaps used for various purposes before they were filled in and the houses built above them. The building of the houses would seem to belong to the early part of the fifth century, if one may judge from the coins found under the floor and in the caverns, and from the pottery. Though the mosaic may be as late as the sixth century, there is nothing except its style to prove this.

From cuttings in the rock it appeared that the cavern underneath had been broken into in building the houses and the openings floored over, probably with wood. These fifth-century buildings were re-used, then, at a still later time, which cannot be definitely dated.

It is to be noted that these buildings are oriented quite differently from

Cistern 1 and from the Roman buildings immediately to the east of them but approximately the same as the rooms to the north, A 40-46, and again these west and south of the cistern, A 10, 11, and 18-26. The cistern on the other hand has practically the same orientation as the Roman buildings (see Plan III). Does it perhaps represent a late use of an earlier Roman structure?

Another area which gave a series of strata was that in which Rooms R 1-5, 7, and 8 was found. Between Cistern 1 and St. Theodore's church there seems to have been an open space. From it just west of the church a street of the same date ran north. Into the street later houses had been built and under it there was a square cistern (2). Under the street and the open space were well-built walls of the Roman period (R 1-5, 7, 8) showing that the street did not exist before the church was built. The main walls were thick with thinner connecting partitions, the masonry regularly laid in courses of approximately the same height. The exposed faces of the blocks were chisel-dressed with wide margins and the middle portion left rough-dressed but without projecting bosses. In the area of R 1-3 the walls extended 3.50 m. below the surface and rested on the rock.

In R 5 two collections of pottery were found on a hard earthen floor above the level of the original footings. The first group was in the southwest corner of the room and consisted of three wine amphorae, a number of jugs of ribbed ware, and a nest of bowls inverted over one another (see below, pp. 32 f., Figs. 3, 4, and Pls. 2, 11, 12). The second group found in the northwest corner consisted of some forty small jugs and bowls. While some pieces were broken, many were whole and the broken ones could be easily mended. Nearby was found a terra-cotta water pipe made of tubular sections which fitted into one another, one end being slightly smaller, the other expanding into a flange, much like modern iron pipe lines, a type extremely common in Gerasa. At one end of the line was a vertical right-angle joint consisting of a pot like the ribbed Byzantine jugs with a smaller connection projecting at the bottom to connect with the horizontal tubes (see Fig. 2). All of this pottery belongs to the second or third century.

The walls, however, may have been of an earlier period. Below the earthen floor on which the pottery groups had been found were sherds of Samian ware, belonging to the early Roman period. Nothing more noteworthy was found. The space below the floor of R 7 was filled with blocks laid down in more or less even courses. Unfortunately only a single identifiable coin was found, and that was Arab.

In this area, then, so far as the evidence goes, there are, first, Arab or late Christian houses built after the church had fallen into disuse. The street

and the open space belong to the second period, that of the church. Below were Roman buildings of the middle of the third century, with scattered evidence in the potsherds of "Samian" type that there had been an earlier Roman occupation. Four strata may, therefore, be counted: Arab, Christian-Byzantine, and two of the Roman period.

At another place, just south of the exterior temenos wall, in Rooms R 10 and 11, five superimposed strata were discovered running probably from Hellenistic to Byzantine times. The steps shown at the west of R 10 ran down to a blocked-up door. When this door was opened, it was found that a

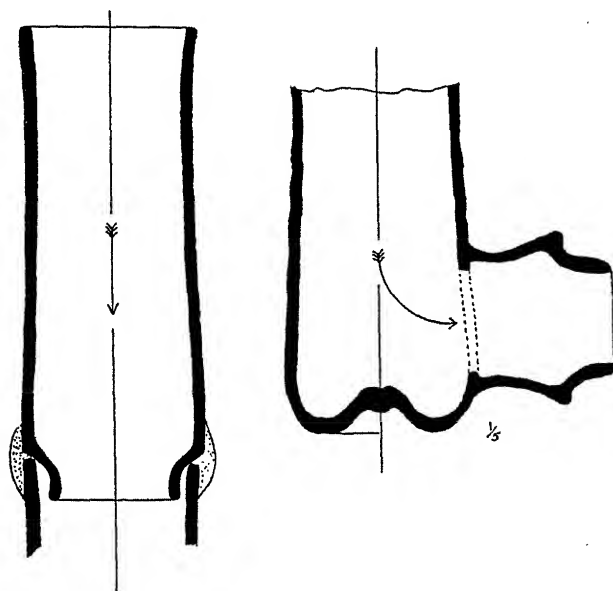


Fig. 2. Tile with connection and right-angle joint

well-cut rock passage extended about four meters southward. Just inside the door was a hole in the roof which was covered by the stones of a high wall of the Byzantine age. The chamber was filled with fine black earth brought in by the rains. At the inner end of the passage a low door of finely-cut arched stones led into a larger chamber extending eastward. A little pottery and a few coins came from the entrance, little of interest from the chamber itself. At the northeast corner of the inner chamber was a walled opening leading to another chamber.

Rooms R 10 and 12 were of well-built masonry laid on the level of the foundations of the temple. Their north wall ran parallel to the exterior

temenos wall. Between the two was a space of some fifty centimeters filled with débris. The face next to this was of small rubble, but the interior face was of coursed stone laid on a rock cutting.

The pottery was of the late Roman or the early Byzantine periods. Ware of the Samian type appeared on the lowest levels with common thin, ribbed cooking pots and small ribbed jugs such as had been found in R 5 in the spring. The lamps were of good Roman, or Imperial, types, with round bowls and small and simple nozzles. On the steps in the doorway leading up from R 10 to R 11 was found a fine amphora of a common Roman type (see p. 31, Fig. 3).

A very considerable number of small objects of all sorts came from these rooms. There were bone bodkins, and other bits of bone articles, pieces of bronze rings and other ornaments and of mirrors, *kohl* spatulas and spoons, and other toilet articles, buttons of bone, and hooks. There were broken bits of a considerable number of terra cotta figurines, a coiffure, arms, limbs, and other pieces.

Very fortunately the considerable number of coins which were found in R 10 and 11 assist materially in dating them. While many were too badly corroded to be legible, three or four copper coins of Philip (244-49), one of them dated in his fifth year (248-49), one of Trebonianus Gallus (251-54), at least eight coins of Gallienus (253-68), and one of Numerianus (282-83), found in R 10 prove quite conclusively that the rooms must have been occupied until towards the end of the third century. In R 11 was one coin of Harithath (Aretas) IV and Shaqilath (9 B. C.-40 A. D.). In the cave below (Cave 4) were one coin of Imp. Claudius Augustus, doubtless Claudius II Gothicus (268-70), one of Philip, a Byzantine coin, probably of Justin II (566-78), and one of Phocas (602-10), probably minted at Antioch. All of the coins of Philip were Antiochene coins with a bust of Philip on the obverse and on the reverse the bust of the turreted city goddess surrounded by the legend ANTIOXEON/MHTPOKOΛON.

What these buildings may have been it is difficult to say, for 10 and 11 were long, narrow, and irregular in shape. Were it not for the number of broken toilet articles and other personal and private effects, one might be tempted to suppose the three rooms to have been places of storage.

In any case the rooms were destroyed some time before 300 A. D. Then they were first covered with a layer of yellow earth containing some potsherds, which sloped down from the temple area to the north. Over this were five or six successive deposits of charcoal (Pl. 3). Into and above these deposits of débris were built walls of approximately the same period as the church of St. Theodore just to the south (built 496 A. D.). What may be the paving

stones of the street which runs up just south of the Museum, that is just south of the temenos wall, ran over R 10, and a long wall, possibly Arabic, parallel to St. Theodore's ran over this. A still earlier street underneath this one possibly ran up to the south entrance to the temple, but it has not yet been followed west beyond the museum.

The remains in this area, therefore, represent the earliest period of Roman occupation, as witnessed by the older coins, then the period to which the major proportion of the coins belong, the third century. This was followed by a period of neglect when the temple area and the immediately contiguous buildings were covered with earth and later with a burning heap of refuse (?). Then came the Byzantine period as witnessed by coins, pottery, and buildings. The Arab period left few traces in this section of the city, except in coins and lamps.

Still another interesting series of strata was found in the region, marked A 41-46 on the plan, just south of the south doorway of the Artemis temenos. The first evidence of occupation was the large pottery kiln in A 42. This had broken into a highly decorated mosaic which bore an inscription indicating that the building belonged to an ecclesiastical establishment.<sup>11</sup> From the northeast corner of this floor steps led up to another room, A 46, floored with a plain mosaic of white tesserae. To the west of the kiln was a floor of white tesserae with a simple design in brown. It ran west under a wall which for the present marks the western limit of the clearance. Room A 46 ran up to the outer edge of the temenos wall and blocked the great doorway.

Room A 42, containing the mosaic, with the rest of the building, was of most peculiar construction. Its foundation walls consisted of re-used blocks supported by column drums rolled up against them, laid on older walls of excellent character. Each corner of the room was made by a drum from the temenos colonnade set up as base for arches which supported the ceiling. It seems strange that a relatively good mosaic floor should be laid in a building so shabbily constructed.

The mosaic rested in part on the walls of earlier structures, in part on debris thrown into the basement rooms of these buildings. Only the cellars and foundations of the earlier period were preserved. But it appeared that there had been two periods during which the cellars were used, one with excellent walls, another when these walls were re-inforced and changed slightly as to orientation. In this second stage stones were used on which there still adhered old plaster with decoration in fine reds and purples such as one sees in Pompeian houses. Fragments of this plaster were found in the debris.

<sup>11</sup> See p. 43 and Pl. 16.

The cellars had originally been cut deep into the rock and completed where necessary with excellent masonry. In some the floors above were carried by means of arches run over the centers of the cellar rooms. In R 28 grooves in the rock had held the ends of the beams which carried the floor over the cellar, and the building was so low down that the original rock served in part for walls of the floor above the cellar also. Construction, colored plaster, and tiles discovered in the débris showed that the earliest building belonged to Roman times.

The pottery found in the area assists in determining the dates. Immediately under the highest, or "A" floors, in A 39-46, were fragments of egg-shaped lamps, of spouted vessels of ware with flat, horizontal ribbing, of other ware with angular ribbing, of large pail-like vessels of gray ware with bands of incised comb decoration, marking the transition from middle to late Byzantine times (see Pls. 13, 14). Farther down, in the basement rooms, were many sherds with rounded ribbing, many fragments of "Samian" ware with its beautiful smooth buff paste covered where visible with a shining red slip which looks almost like glaze, and of other well-shaped forms of excellent ware. Instead of egg-shaped lamps round ones were found, some with long, some with short, stubby nozzles. The lower débris, therefore, points to occupation during the first three centuries of the Christian era.

Of the coins found few could be deciphered. One in A 39 had a Hebrew inscription and the Hasmonean double cornucopia. Another was dated in the year XI of Justin II, that is 575-6. Under the mosaic of A 42 two small coins were found, both so worn that only a faint cross can be found on one of them. They are of fourth-century type. From A 44 came four identifiable coins, one of Gerasa (undatable), one of Galerius Maximus (305-13), one of Constantine II, and therefore not later than 340, and one of Valentinian I or II (364-92). In A 45 a Nabatean coin, apparently of Harethath IV and Shaqîlath (9 B. C.—10 A. D.), appeared. The two early coins were probably brought to the surface when one of the numerous water channels of this region was dug. If, therefore, the débris in A 44 was not thrown in at a later time, the room must have been occupied in the fourth century, whereas the mosaic in A 42 was not put down till much later. However, no floor was found in A 44 and it is possible that the fourth-century coins actually came from débris that had been below its floor. R 21, which was under A 43, produced a coin of Theodosius (379-95).

The earliest structures, then, were fine buildings belonging to the period when the temple was in use, like R 10-14. Possibly a street giving access to the temple from the south ran just west of this building, which, even though the evidence is meagre, was clearly a very fine structure of the second or third

century. Perhaps early in the Christian period, this was rebuilt with a slight change in the orientation of the walls. Then, in the late fifth or early sixth century, after an earthquake destroyed these buildings along with the temple and its colonnade, the cellars were filled up and the fallen drums of the temple colonnade used in building an ecclesiastical structure doubtless connected with St. Theodore's Church. At this period access to the temple gate was cut off. The last stage must belong to early Arab times, when the kiln was set in the broken mosaic of A 42.

Another area which produced most interesting material was that which is marked A 32-36, A 47, B 15, and R 18, south of Cistern 1. The numbers themselves are an indication of at least three levels. But the stratification was still more complicated. The building of importance was a small temple belonging to the first or second century A. D. Its plan was peculiar (see Plan I and Pl. 4). At the rear, the west, was a small adyton, or cella, over 3 m. deep, resting on a vault. In front of this was a wider vestibule about 4 m. deep, terminating in antae with Corinthian capitals. Then came a tetrastyle portico some three meters deep. The distance between the column centers was 2.40 m. In front of the center intercolumniation was a rather narrow and irregular returning stairway. At the north corner of the steps, 30 cm. away, was a well-cut altar base 2 m. square.

Around the front of the temple was a small colonnaded court. The single row of columns began at the anta of the temple and ran out northward two columns, or 3.50 m., then eastward six columns (9.50 m.), and then southward probably eight or possibly nine columns (counting corner columns twice). As these columns are 2.25 m. from center to center, the court would have been 15.75 or 18 m. wide. It was so shallow that there was a space of but 1.45 m. between the altar and the row of columns. The columns stood on an excellent stylobate and had Attic bases. It is probable that the capitals were Ionic, for several such were found in the debris near the buildings. Near the vestibule were found an anta base with the same moldings as on the column bases and a Corinthian capital which evidently belonged to it (Pl. 5).

Where the outside wall of the colonnade ran is problematic, as but little foundation was found which ran exactly parallel with the colonnade, but apparently the covered corridor was about 3 m. wide, and possibly irregular in form. Nor was any doorway to the colonnade and court discovered. Perhaps another season's dig will discover answers to some of the unsolved architectural problems, for only the northern half of the structure was uncovered.

In B 14 was the knee joint of a small marble statuette. Near the floor in

B. 15 was a limestone altar of incense, 518 mm. high and 276 mm. square. The bowl on the top was partly broken but still retained the marks of fire. Three sides of the altar were plain; the fourth bore a draped bust in high relief wearing a rayed crown which suggests a sun deity. In the débris higher up was a plain altar 450 mm. high and 245 mm. square. The bowl was almost completely destroyed. Each altar had acanthus leaves at its four corners supporting the bowl (see Pl. 6). The two altars probably came from the little temple, and, though Room B 15 was built into the temple court and covered part of the steps and altar base, they were in some way preserved to appear later in the débris which filled the houses that had been built into the temple court in Christian times after the pagan sanctuary fell into disuse.

Absolutely nothing was found in the way of inscriptions or, aside from the altars, cult objects which would determine when the temple was built or to whom it was dedicated. It is to be hoped that the evidence lies in the still unexcavated portion. In any case this small temple is a most interesting example of the less pretentious places of worship which must have been found on the back streets of a Roman city.

There were various evidences of occupation previous to the building of the temple. Under the stylobate of the colonnade in certain places were walls with a slightly different orientation. Covered by the temple steps was a small cistern. Behind the second and third columns of the front colonnade lay a mill or vat covered with stone slabs. Just behind the northeast corner column was the entrance to a cave which had last been used as an olive press. This cave, numbered 5, distinguished itself in two ways, first because four men were imprisoned in it by the caving of a retaining wall above it, and second because a vast mass of potsherds came from it. The men were speedily rescued none the worse for their experience, and spent the next few days celebrating. The potsherds were so numerous that they had to be set aside till the spring campaign of 1931, when a large series of tables was built on which to assemble and study them.

The débris under the level of the temple itself showed fragments of the fine buff "Samian" ware with red slip as well as ribbed ware and other later varieties. Although Cave 5, which seems originally to have been entered by the opening under the northeast corner of the temple colonnade, held a great variety of pottery fragments, unfortunately there were few whole vessels. The finest piece discovered was a perfectly preserved bronze lamp, round as to body and having a vertical loop handle and long spout with flaring flanges. Of terra-cotta lamps there were few, of various types, egg-shaped and round, the latter with longer and shorter nozzles. There were recorded some two dozen varieties of plates and a still larger number of bowl types of excellent

wares in red, brown, buff, tan, yellow, orange, and green, but with red decidedly predominating. Many sherds of lightly ribbed ware were found. The latest of the pottery dates from the latter part of the Roman period. But a very considerable number of fragments of Samian ware were found in the deeper parts of the cave, testifying to its use as early as the first century.

When the cave was last in use is difficult to say. A blocked-up doorway led to the east under ground as yet unexcavated, and therefore was not entered. The cave may have been entered from that direction when the building of the temple prevented access by the opening found by the expedition. But in any case it had been used before the temple was built, as the fine terra-cotta ware proved.

The pottery from the rooms marked A 21, 22, 24-30, 32-36 included egg-shaped lamps, some with conventionalized animal heads as handles, gray ware with incised comb decoration, vessels with deep, flat ribbing, and fragments of censers, or braziers, and pail-like vessels of heavy gray ware with connected wedge decoration. A 34 produced one whole and one fragmentary lamp of the round type with small nozzle and teat handle.

The B stratum (Rooms 9-25) had many fragments of glass and large numbers of fragments of ribbed ware, some with broad, flat-topped ribs, others with shallow, round ribs. The zig-zag, wedge-shaped ornament had already been introduced, as well as egg-shaped lamps, and censers. Several fragments of roof tiles in pinkish and in gray ware were found in B 22. There is then little difference between the pottery of A and B.

The coins found in or under the A stratum of this area belonged, so far as they were decipherable, to the fourth century. Licinius (2), Constantine the Great (2), Constantine II, Constans II, and one of the Valentinians were represented and there were other coins of this period not precisely identifiable. The only exception was a silver coin of Trajan, discovered above B 15.

The coins found in the lowest stratum were of a very different character. All that are identifiable were found in R 18 or just east of it, that is in the vestibule or cella of the little temple. The most recent was of Probus (276-81), then one of Gallienus. There was one of Harethath IV and Shaqilath (9 B. C.-40 A. D.), one Hasmonean coin with the double cornucopia, and one of an Antiochus. Two Constantinian coins had sifted down into the same level. A number of unusual coins also came from this area. One found just east of the altar base bore a veiled female head on the obverse and on the reverse a palm tree with two hanging bunches of fruit. There is no trace of inscription. Another represents an obviously non-Greek type. The obverse is completely obliterated. On the reverse is a deeply stamped but indistinct oval containing a slender bending or half-crouching figure.

The evidence of the coins, then, is not entirely unambiguous. Nevertheless their testimony is worth noting. The A stratum would seem to come from the fourth century or later. The coins of the lowest level cover at least four centuries, showing that material from various periods has accumulated. But it is surely significant that several coins which belong before or at the beginning of the Christian era were found. If the Ionic capitals found in the neighborhood belonged to the temple colonnade, they also suggest an early date, for not only are they "Hellenistic" in style, but the evidence coming to hand tends to date all the Ionic structures in the city to the first century A. D. or the beginning of the second century. Without other testimony the little anonymous temple cannot be confidently dated so early, but certainly the evidence suggests that the second century is not too early a date for it and that the spot was already occupied at a much earlier time.

The stratification of the area begins, then, with an occupation not later than the first century A. D. This was followed by the building of the temple, perhaps in the first, possibly early in the second century. In the Christian period, when the temple fell into disuse, walls were built across the colonnade and between the columns to form small living rooms. These were abandoned and a series of fairly good walls built on slightly different angles. Above these was another series of walls on entirely independent lines belonging to late Byzantine or early Arab times. These lay some two or three meters below the surface. At the west side there was a cemented cistern in this period.

The "stratification" outlined above is in the nature of the case quite different from that of a Palestinian site of the Bronze or early Iron Ages. It will never be possible at Jerash to establish "levels" of the type found on a tell with a long history. Nevertheless, with further excavation, the combination of coins and inscriptions will give added precision to datings based on ceramic and architectural evidence, and may alter conclusions previously reached. As only one considerable site of this character has been dug in Palestine, that is Samaria, there is still much to be learned.

### III. THE ARTEMIS TEMPLE

This magnificent temple, easily the most imposing as well as the most beautiful of the visible monuments of Jerash, occupies the chief position in the city plan, a hill overlooking the town in all directions. It has perhaps suffered least from earthquakes and human spoliation, and in its present state, is an object of admiration for an increasing number of visitors.

The outer temenos wall has largely disappeared, but its foundations remain, so that it will not be difficult to develop the whole of the original plan. The

finely-cut masonry of the upper walls, as well as the stone pavement of the great court, was a rich quarry for the builders of the numerous Christian churches which later rose in its immediate neighborhood. The columns, being of less use, remain standing in their entirety, or their drums and capitals lie scattered over and under the debris now filling the court, near their former positions. The main building is remarkably well preserved (see Frontispiece). The north-wall courses are in places as high as the crowning entablature, and the south wall is but little lower. About half the west wall has fallen behind the building, while the east front, rendered weak by widening its doorway, fell into the portico. All around the building lie heaps of blocks from which the cella rises in a stately pile.

The excavations thus far indicate that the temple complex as a whole was never built over in any systematic scheme. In front of the portico were several poor rooms built over the site of the staircase, the steps of which had been carried away, and around the remains of the ancient altar were pottery kilns and buildings connected with them.

In the Arab period the cella with its portico and the whole of the south peristyle was used for a small fortress. The spaces between the existing columns were filled in with masonry and, where the columns were missing, new free-standing walls were built. The holes for the wooden roof beams of this later structure can be seen in the exterior faces of the cella and in the sides of the portico columns. The chief entrance of the fortress was on the north side, just west of the last standing column. It was a rather ornamental doorway, built in part of fine molded jambs taken from the "Serapion" door leading into the Fountain Court between the cathedral and St. Theodore's. It is important to note the condition of the various portions of the main building because the sequence of human and natural destruction gives the story of the cessation of actual use and of the final abandonment of the temple. Much remains to be disentangled. At present it is quite obvious that when the fortress was built—and this is possibly the Arab fortress that was captured and destroyed by Baldwin II in 1121 A. D.—the columns along the eastern end were practically in the condition that they are now. The one at the northeast corner has fallen, but the square plinth block of its base is still *in situ*. The drums and capital are lying over the small buildings which later were built on the site of the staircase. The cella was already a mere roofless shell, but the great mass of blocks had not yet filled up the interior, for there are traces of Arab masonry in the large western recess and on the original floor below the mass of fallen blocks. The great eastern doorway had been blocked up before this mass had fallen. The Arabs used the winding staircase in the southeast corner to ascend to the top of the wall, which

possibly served as a watch tower, and to gain access to it broke through the south wall and built in a small doorway using as a door one of the pivoted stone slabs taken from a neighboring tomb.

There remained standing at this date but three of the columns of the south peristyle, counting from the eastern face. The base of a plinth of a fourth column is *in situ* and is incorporated in the Arab wall. Of the north peristyle again only portions of three columns remain. On the west façade none remains. The peristyle on three sides had already disappeared, leaving only the eastern portico intact.

It is remarkable that there are no evidences of drums, bases or capitals of a size to belong to the temple lying on the north side of the building, where the depth of débris is scarcely sufficient to conceal them. There is still a possibility that fragments may be found on the west and south sides, but where the latter side has been cleared, none has yet been found. It is, of course, one possibility that the entire peristyle was never completed, only the eastern portico being finished, and the extension around the other sides left for some future time. On the other hand the great podium was completely finished, and stands intact along the south, and is visible beneath the fallen débris on the west. On the north most of its crowning molding and portions of the dado have disappeared, but it had existed there.

It is still an open question whether the blocking of the east door to the cella belongs to the Byzantine or the Arab fortress period. The further clearance of the interior will settle this point. But we have to consider in this connection one curious fact. While Christian churches were often built over and inside earlier pagan structures, no attempt was made to utilize either the Artemis temple or its companion at the south end of the town, the temple of Zeus, for such a purpose. In the Artemis temple, the large eastern door would have offered an excellent opportunity for adding an apse, and the breaking through of a western entrance would not have presented an insurmountable difficulty. The problem is solved by assuming that, at Jerash, the pagan worship lived on side by side with that of Christianity for a long period and kept up a sort of rivalry. In fact, an inscription found here records the fact that the congregation of St. Theodore, which was just to the south and on a lower level, was much disgusted at the refuse of sacrifices being thrown in their direction by their pagan neighbors.

Just when the pagan worship finally broke down, we cannot say, but certainly not until it had ceased to be used for worship was the great east door sealed up. When the Christians became dominant, the pagans had perhaps lost the greater portion of their temenos, and with it, its enclosing walls, and they were left holding until the end their central building. The cult

possibly died out very slowly: the body of worshippers became smaller and smaller, and its revenues dwindled, until the few remaining faithful gave up the struggle, walled up their shrine and departed to more congenial surroundings. It is difficult to believe that the Christians would have left the temple vacant and made no effort to destroy it completely. This would be explained had paganism lasted here nearly as long as the Christian worship, when the latter had become nearly as weak and wasted as themselves. Never again was the site looked upon as a desirable residence quarter, and the great temenos became nothing more than the dumping ground of the city, and there came layer upon layer of stone chips, simple earth, ashes, and broken pottery, none of it earlier than the end of the Byzantine period, gradually filling it to a depth of several meters. Just before this was the time when any pavements or mosaics in the court or colonnades must have disappeared. But whatever present conclusions may be, it is certain that the excavations will give all the real solutions. Even without expensive excavation, much of the building can be lifted back into position, giving a nearly perfect reconstruction of the beautiful temple.

The casual visitor misses one of the most impressive features of the Artemis complex. This is the marvelous skill with which the building and its approaches have been adapted to the hill. The architect, whose name, it is to be hoped, may somewhere be found, was a genius in design, and it was evidently he who chose this particular site with an eye to its possibilities. He had a sense of proportion, for he maintained throughout the entire length of his plan a perfect balance of parts and used the rising ground for a series of gates and façades rising one behind the other, culminating in the splendid temple on the summit. One really does not appreciate all this if one considers the Propylaea on the main street as the beginning of the scheme. From here one would have seen nothing of the upper temple. The designer started on the eastern side of the city. On his axis he threw across the river a bridge that, as it had too sharp a rise for vehicular traffic, must have supported a wide flight of steps. Where this reached the level of the first terrace on the western bank was built an arched monumental gate. This led to a short colonnaded street, raised on a causeway above the neighboring houses. This afterwards became the nave of a church, and its boundary walls the outside of the two side aisles. The gateway was embodied in the apse, the voussoirs becoming part of the curved face around the altar. Where this street joined the main avenue of the city, there was a trapezoidal open space, with two large exedrae at the ends. These were on higher levels and approached by flights of steps extending across the whole width. In the exedrae were probably some decorative features, now lost. The opening on

the street had large columns between antae, resting on a base of several steps which prevented any wheeled vehicles from passing. Several fragments have been preserved from the architrave of this façade which contain, in fine large letters, portions of an inscription. Lying just on the centre and still partly blocking the main street is a complete set of voussoirs which had fallen either from this side or the opposite side of the street.

All these features, to the east of the main avenue, were simply parts of the main approach to the propylaea, and, with it and the main structures above, were all laid out, as has been said, on one straight axis perpendicular to the main street. The main complex occupied a large area to the west. It was on a terrace, which had been cut partly out of the sloping hillside and at its outer eastern end, raised to the proper level on a series of massive vaults. This end was masked by a heavy terrace wall set back 20 m. from the street and extending along it for a distance of 120 m. At the foot of this wall were the usual small shops, evidently the property of the temple and rented out to provide part of its revenues. The propylaeum occupied the centre and on either side of it were exedrae. There must have been an enclosing wall above the terrace wall, flanked with towers, but this has disappeared.

The propylaeum is one of the most imposing monuments left, and under the careful restoration of Mr. Horsfield has become the structure that most attracts the attention of visitors. It consists of a recess in which were the three entrance doors, flanked with two square towers. The main portal was 5 m. wide and closed with double doors, 9 m. high. The side doors were smaller and were doubtless the ones ordinarily used, that in the center being opened only for festivals and other special occasions. The lintel of the great door has not been put back into place, nor the pediment above it, but most of the fragments are still to be found and have been numbered and registered for a further reconstruction. Inside the entrance began the great flight of stairs, 19.5 m. wide and built in easy flights of six steps each with wide landings between. This was enclosed within high and splendidly built walls, crowned with a simple molding, and we have some evidence that there was a colonnade around the sides similar to that built inside the entrance to the later cathedral not far to the south. There yet remains the problem as to what occupied the space between the top of the staircase, which rose to a height of 11 m. above the lower street entrance, and the façade of the inner temple enclosure. No excavation has been done here, owing to the lack of dumping space in the vicinity, but with some measure of certainty I expect to find here a forecourt with a further short flight of steps to the inner court. The façade of this probably had, as at Baalbek, a tower at each end.

The block of buildings forming the eastern façade is 20 m. wide including the portion of the colonnade across the court. There were also a series of smaller chambers, a continuation of the exedra feature of the south and north sides. Certainly the three-door feature of the lower propylaea was repeated here. Entering through these one reached at once the great inner court. This was 88 m. wide and 124 m. long, entirely surrounded by a colonnade 6 m. wide (see Pl. 7) and bounded on at least three sides by a series of exedrae alternating with chambers which opened from them and not on to the colonnade. These chambers were 7.5 m. wide. At the west end where the hill was scarped out for the court, the rough rock surface was faced with masonry. Here there is an immense deposit of debris, and it is not yet sure that the exedrae continued around the rear. No remains of stone pavement were found in the central court or in the colonnade, since this, being the easiest to take up, was the first masonry to be carried away for the later churches. Presumably it was like the flooring of the forum and main street.

The main temple building was placed nearer the rear wall, so that ample space remained in front. Here was the large altar of which part of the base moldings was found. The temple stood on a beautifully proportioned podium 21.80 m. by 53 m. and 3.75 m. in height. Both base and top moldings of the podium were well cut and the dado blocks were fitted in even courses, with stretchers and headers laid alternately, a header being placed above the centre of a stretcher in the adjoining course (see Pl. 8). The podium walls ran out to form the sides of the steps which extended the width of the building, and like the great staircase consisted of a series of short flights and broad landings. Unfortunately the steps have been stripped off entirely and only the rock scarpings remain. Along the inner faces of the boundary walls, however, the system of the steps can be traced by the marking on the surface of the wall blocks. The east portico and the peristyle were paved with slabs 40 cm. thick, the slabs along the inner row being bonded into the main walls. Above this floor the columns rose to a height of 13.5 m. including bases and capitals. From fragments of the architrave and frieze which were found in the mass of fallen masonry around the walls, and from a single piece of a beautiful cornice used as a lintel above a door in the Church of St. John, but certainly belonging to the Artemis building, we can estimate the entire entablature to have been 2.90 m. high. Then, if the pediment can be restored with the same slope and proportions of that of the Zeus temple, which preceded that of Artemis by not much more than half a century, we have the entire height of the temple as 25.15 m. above the court.

The Corinthian columns of the east portico, with the exception of that at the northeast corner, are still for the most part in place. Several have lost

their capitals, one the upper end of the shaft as well, but the missing pieces are to be found nearby. The base block of the missing column is *in situ*, and all the drums and the two parts of the capital lie scattered over the later houses on the staircase. The shafts are of different heights. As they were built up of drums, no two equal, the error may have occurred in the quarry, where they were not fitted accurately together before being brought to the temple. Then when put into place, they did not level up properly. An attempt was made to correct this by the capitals which also differ in height. These are built in two blocks, the lower containing the two lower rows of acanthus leaves, the upper, the volutes and the overhanging abacus. No two are quite similar in design, but on the whole the quality of the work is excellent. The same irregularity in columns and caps occurs all over Jerash, but it is difficult to explain why in a building in which such care was taken to lay it out symmetrically and level, and to keep the masonry regular, there was such an obviously bad piece of work in setting up the columns. As to the difference in style of the capitals, there is also the possibility that they were taken from various older buildings and therefore could not be mates.

In the walls of the cella the exterior coursing is evenly and regularly laid. There is a difference of not more than a centimeter between courses and the average is 586 millimeters, which can be taken as the length of the standard employed. In these walls the masonry reached an unusual refinement at least for oriental Roman work. The blocks are cut to the unit used, and consist of square headers, one unit each way laid alternately with stretchers of double this dimension. Headers were laid immediately below one another in alternate rows, so that the whole face of the wall is laid uniformly, requiring each stone to be specially cut and fitted. There are several stones occurring over openings which had to be longer than these, but they are always a multiple of the height of the course. Furthermore, in this building, unlike the older Zeus temple, the masonry of the walls is solid. The headers run clear through to the inside and the stretchers lie in pairs lengthwise of the wall. On the interior face accurate fitting of the edges did not matter, as the entire surface was hidden under a casing of thin slabs of imported colored marbles. Only the fastening holes are left, and much of the precious material may still be found on the floors and walls of the various later churches.

The portico is enclosed between antae and two columns lining up with two in the outer row. In the wall are two small, shallow niches rather squeezed into the corners, to make room for the door which in width at least is approximately the same as the central one of the propylaea. If of the same proportions, it would have occupied most of the east wall. It had a flat lintel covered by a semicircular relieving arch. It was undoubtedly the weakest

part of the building and no doubt fell during the first great seismic disturbance. The whole portico was filled with blocks of masonry under which was found pottery of the early Islamic period and some as late as 1000 A. D. This débris has all been removed. The lower portion of the door is blocked with a later wall of large stones, mentioned before. Inside, the cella is filled to a depth of several meters with squared blocks fallen from the side walls. There is a series of niches along each side and two at either end. These are now rough, as the fine veneer of marble has been stripped off. At the west end is a recess 4 m. wide and 2 m. deep, covered by a semicircular arch with a wider relieving arch above. The floor of this is 2.85 m. above the portico floor. At the eastern door were three steps up from the portico to the sill and at the western end of the cella a further flight leads to the recess in which stood the effigy of the deity. There is further evidence of this seen in the vaulting of the substructure. The recess could also be reached by a little side stairway from the north end up the west wall just below a niche, ending in the north side of the recess. On the opposite side a similar door opens on a small flight of steps to the roof.

The main approach to the roof, however, is in a corbelled flight of steps in the masonry of the east wall. This was entered from the southeast corner of the cella and by several square turns finds its way to the top of the building. In the northeast corner, the upper portion of the east wall is solid, but a door balancing that on the other side opens into a steep stairs which leads down to a corridor under the north peristyle (see Pls. 9 and 10). This is about 1.20 m. wide and extends the whole length of the north side. At the west end it is blocked by a later wall, with a door in it covered with a fragment of a frieze, not however belonging to the Artemis structure. The roof of this corridor was the thick slab floor of the peristyle, only a few slabs in the portico end being *in situ*.

Beneath the temple is an interesting series of vaults. The walls of the podium carrying the peristyle are 2.50 m. thick, and are the same under the side walls of the cella. Under the great east door, however, the foundation is 4.80 m. thick and under the west recess 7 m. Under the portico are three vaulted chambers parallel to the axis, each 2.10 m. wide and 8 m. long. The vaults are semicircular with well-fitted rows of voussoirs. Small doors connect them with each other. At the western end of the central vault the vaulting slopes upwards under the three steps that led from the portico level to the main door sill. Through the eastern wall, runs a narrow passage lined and roofed with heavy blocks, leading into the main series of vaults under the cella. It should be noted here that on many of the stones here as well as on others found in the superstructure walls, are the letters ΔΙΗ, a mason's

mark put on at the quarry to designate the destination of the stones. The three inner vaults are 2.40 m. wide and 13.60 m. long, and 3.10 m. high for a distance of 8.60 m. Then the vaulting suddenly rises to a height of 3.70 m. which would bring the tops of the voussoirs practically to the floor level of the cella above. The floor here was, therefore, higher than to the east, and this change of vaulting was to provide for the steps above which led to the recess. The clearance of the cella will settle this point. How these subterranean vaults were reached is still a question. At the western end of the south main vault, is a small low door with a passage behind it which turns off to the north through the great foundation wall under the recess. The roofing of this passage is in a very precarious condition and the secret must be solved from the other direction and considerable re-inforcement given to the structures above before even this can be attempted. There must be some special reason for the thickness of the 7 m. foundation wall, and it seems reasonable to suppose that the steps from the east façade go down in under the north peristyle, turn in at the west end under the building through this wall and so to the lower chambers.

The main cella was roofed with wood and tiles. Along the north inner face can be seen the holes which held the supporting beams of a trussed roof, so commonly used in Roman structures.

#### IV. REPORT ON FINDS

##### 1. *Pottery*

Chronologically the range of pottery types at Jerash is limited, and what has been found up to the present is confined between the Hellenistic age on one hand and the Mediaeval Arabic period on the other. The great periods are, of course, the Roman and Byzantine. Purely Arabic wares are scantily represented, and the Hellenistic have been found only in a few scattered test trenches. At such an outlying post as Jerash, we have to deal with a mixed population, representatives of the conquering peoples living side by side with the native elements. The Romans doubtless introduced some new methods of manufacture, and some new forms, but true Roman wares must have been largely importations with of course many local attempts at imitations. We never can divide our periods sharply, but must make allowances for the interlocking of both wares and forms of vessels. The different tastes, uses, customs, and even the different training of potters make this necessary. Hence it is here dangerous to depend solely upon either fabrics or forms as criteria in dating, except in the broadest sense. The evidence of well-dated coins, or even an occasional inscription, when found with pottery, are much

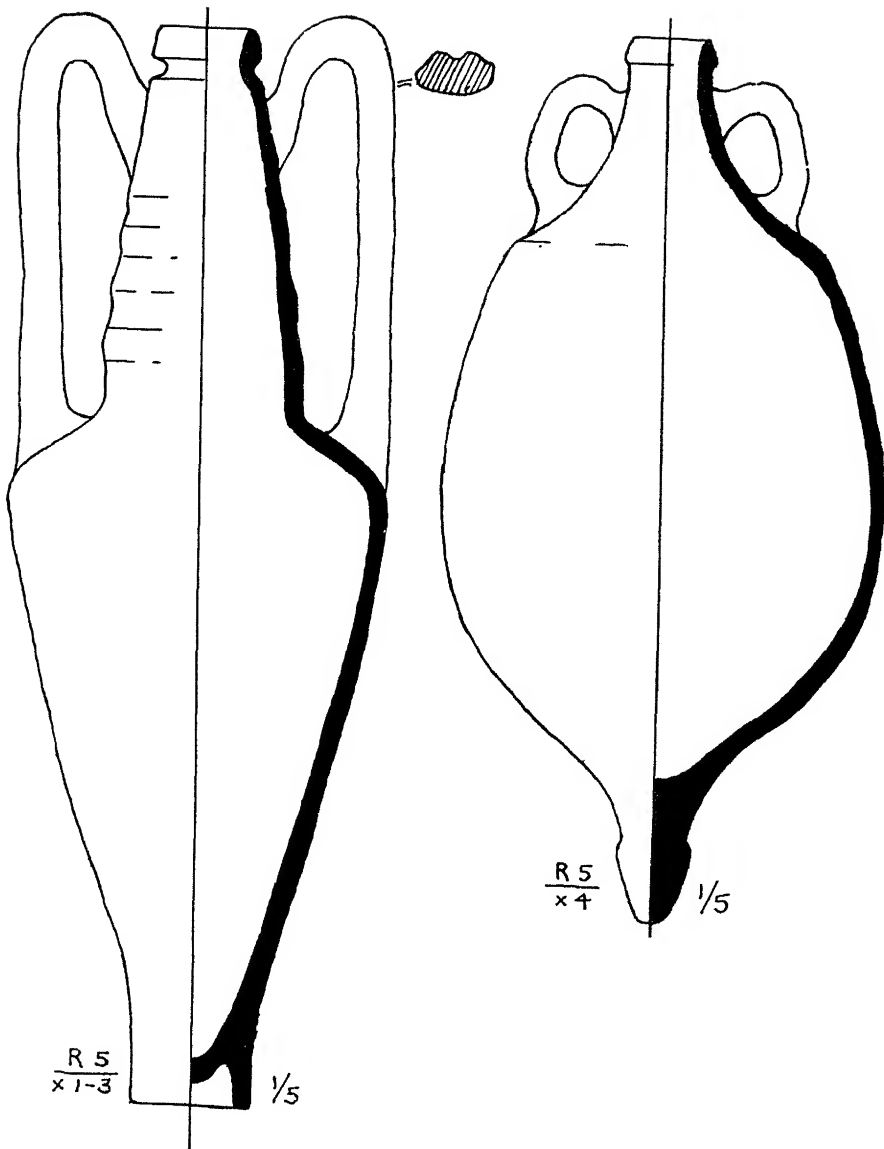


Fig. 3. Wine jars from R 5

safer clues. As, however, excavation progresses, our corpus of types will increase, and sequences will become more clearly established. At present only samples of the more definite groups can be given.

The Hellenistic material, as has been said, is still scanty, and but few complete forms have been found or reconstructed, so that, in this report, they may be omitted. The Roman types will concern us first. Of these, the finest collection, consisting of some 88 pieces, came from Room R 5. There was a great variety of forms, of which only a few are illustrated in Plate 12 and Figures 3 and 4. We were able to date this group approximately to the second half of the third century from coins found in Room R 11 in connection with the same shapes and fabrics. The main groups in the collection are: amphorae

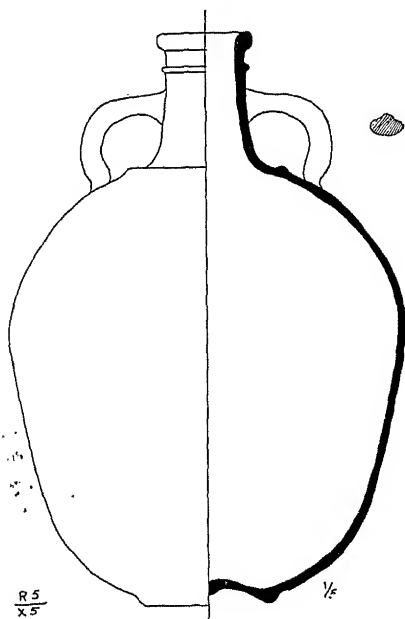


Fig. 4. Water jar from R 5

for shipping wine, jars for carrying water, a large number of jugs, large and small, cooking pots, both spherical and of wide basin form, and bowls.

Of the amphorae there are three of the type shown in Fig. 3, x 1-3. These are of long, slender shape, the late development of the familiar Rhodian wine jar, with smooth bodies and deeply ribbed necks. One had the short base also ribbed. The ware is fine light red, with a very slight percentage of grit, the surfaces being smoothed with water. The neck near the rim is deeply grooved to hold the stoppers. The fourth jar has an ovoid body, with a thick, heavy knob at the bottom. The handles are attached to the short neck. Except as otherwise noted, the ware is always a light red, with a wet-smoothed surface. The only example of a water jar is x 5 (Fig. 4).

Of the smaller handled jugs there is a great variety. First come the larger sizes, represented by x 8 (Pl. 12). In this the ware is slightly gritty, but as usual wet smoothed. A unique jug is x 14, but as its neck is missing it is not shown in the present memoir. It, furthermore, does not properly belong to the period, as it is of the fine buff paste, with glossy red slip characteristic of the so-called Samian pottery. It forms a link with the earlier period and may have been a hangover. Only one of the small, closely ribbed jugs is found in this collection. They are common to this period and continue into the early Byzantine time. Juglets of the types x 16 and x 17 are not common in the collection, but there are several of the more graceful form of x 18 with a splash of bistre slip on one side. There is a single example of x 20, with finely ribbed body. Then comes another graceful group, x 21 to x 23. These are squat and of good fabric, the first with a rather sandy finish and the last with a bistre slip on the neck running unevenly down the sides. The commonest form of juglet is represented by x 26, of which we had a number of varieties, all closely resembling one another. All are ribbed, and most had a purplish surface but no slip.

Small pots are of two forms, those with globular bodies as in x 34 and x 35, and those with tapering sides, x 37, x 40, and x 41. These are small wide-mouth pots and their use is not clear. A few have one or two handles, some are slightly ribbed, as shown, while others of similar shape are smooth. One has traces of a faint orange slip. Note the twisted handle on x 34, which is unusual for this period on a small pot. The tapered varieties have purplish surfaces and are all ribbed.

The cooking pots are of the well known globular form, finely ribbed, always of thin brownish red ware ribbed on the shoulder only and smooth on the rest of the body. There are two handles pinched on at the lower attachment. Sometimes the ware is fired with a black core, and all have traces of the smoke of usage. A remarkable series of wide-mouthed bowls is shown by x 55 and x 56. These are characterized by a wide overhanging rim, sometimes slightly channeled. A series of small bowls follows closely the outlines of Hellenistic bowls, but the material is different, being not so fine in texture, and none with the exception of x 57, having any red slip. With the collection are fragments of cooking-pot covers, of which one, x 57, is complete enough to be drawn. This has a small aperture for the escape of steam while in use.

With the real Byzantine period many entirely new shapes of vessels come into use, and we have also new wares. Some of the more important shapes are shown in Plate 13 and Figures 5 and 6. The large storage jars, such as

that in Figure 5, are built up by hand with pats of clay pressed out into sheets in the hand and added one after another until the body forms up. The shape on the whole is graceful, and on the shoulder are four vertical loop handles in pairs, more for tying on the cover than for lifting. The ware is a thick red, with a brown core, and the surface is carefully smoothed down

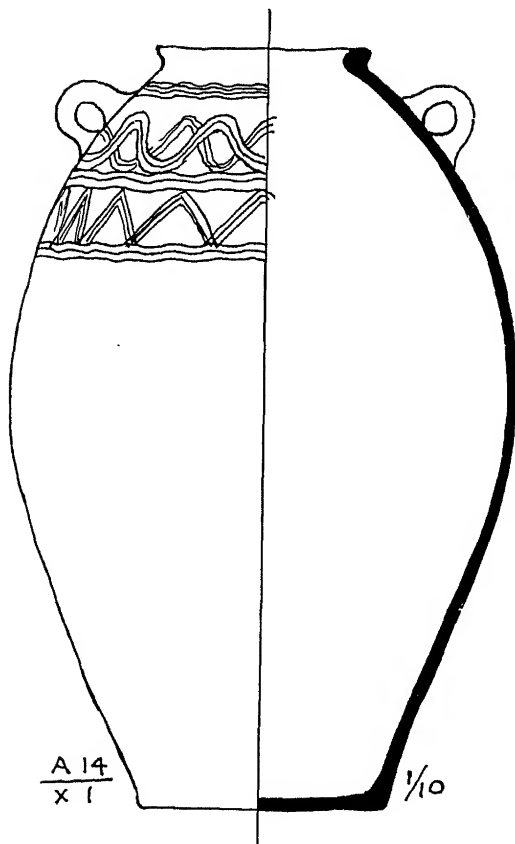


Fig. 5. Byzantine storage jar from A 14

with water. There are two wide bands of decoration made with a three-tooth comb, in wavy lines, deep waves and zigzags. The specimen shown, from Room A 14, is 980 mm. high and has been restored from many fragments. In a large pot from the same room, Figure 6, we have a shape which reminds one of the similar pots belonging to the Early Bronze Age. This is of hard, uniform gray ware, and has three loop handles spaced equally around the

shoulder, between combed bands. On the lower band, the potter has crudely attempted a wine pattern. This also has a wavy decoration on rim.

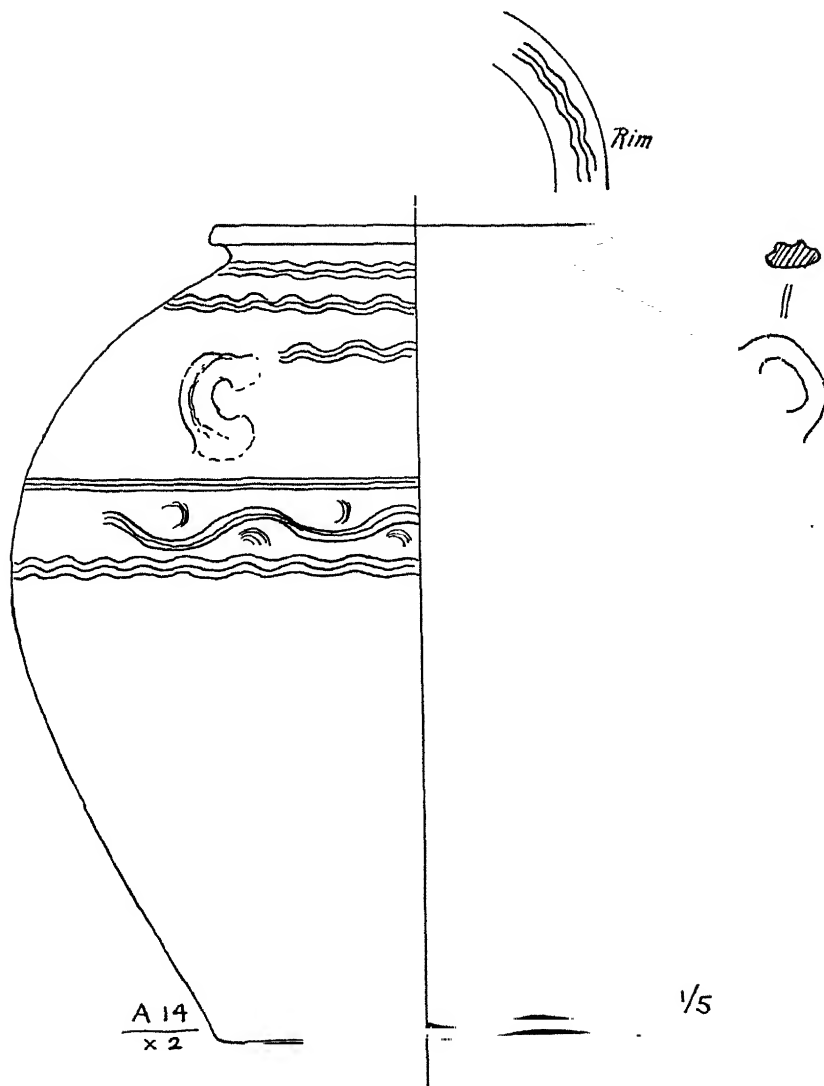


Fig. 6. Byzantine pot from A 14

Very characteristic of this period, which may be placed tentatively between 500 and 600 A. D., that is the end of the real Byzantine era, are the vessels

of hard gray ware. This runs from a light shade of slatey gray to deep purplish gray color in sections, and is used only for the large pots, and but rarely for jars. In most cases the surface has one or more combed bands, and some have similar bands on the rims. The typical bowl is from Cistern 1, x 20, shown on Plate 13. Another large spherical pot from Room A 14, x 3, gives a variation of the decoration. Here bands and curves are formed by dragging across the surface with a rocking sidewise movement a narrow square-end implement, of wood or bone, giving a curious and not unpleasing appearance. In some examples this form of decoration is carried over the entire surface, in parallel bands in an infinite variety. On the gray-ware vessels we also have scalloped rims, made simply by pressing down the soft clay with the finger at intervals around the rim.

Of other forms of this period, two have been selected as typical. First is the cooking pot from Room B 2, x 2 on Plate 13. This is of red ware, with brown core. Where the shoulder forms a juncture with the lower portion, a scalloped edge has been stuck on. The body is slightly ribbed above and below, but not all over. On the shoulder are numerous roughly parallel wavy lines in white paint. The other example from Room A 12, x 1, is a jug of a shape which persists until the present time and resembles exactly the modern Arab toilet jug, and its use was probably the same in the early period. In this the neck is made separately and then worked into the body. The spout is modeled, then stuck on the finished body, and finally a hole is punched through it into the body. A very common form of cooking vessel, which also persists into the Arab times, is that shown on Plate 14, from Room B 2, x 1. These are always of a coarse, brittle red ware, ribbed surface, and usually, as in this example, have two horizontal loop handles. Then we find the censers like that from A 24, on this plate. This was restored from fragments of several, no one being complete in itself. The body, which is the usual red ware and wet smoothed, was made as an ordinary squat jar, with a large opening cut out on one side and numerous holes either square or round punched through the sides. A ring of clay was inserted in the mouth and the rim then squeezed tightly in so as to hold this and completely seal the orifice.

In Room A 24 were found numerous fragments of plates of a fine, hard, light-red ware, almost a paste, with a beautifully wet-smoothed surface. On the inside, in purplish-red outlines, were drawn figures of animals, birds, and plants. The bodies were then filled in carelessly with a thin white paint. This was hurriedly done, so that a single smear often serves for the body of an animal, and runs over the red outlines. The plates are about 33 cm. in diameter.

## 2. *Bronzes*

On Plate 14 are given two bronze pieces, one a bowl on a low pedestal base and with a bail handle. The bottom was hammered from a separate piece and welded on to the main body. This was found in Room B 2. The other specimen, from Room A 5, is one of two bottles of somewhat similar shape, the other being not in such good condition. Here the neck was in one piece afterwards attached to the body, and it is probable that the bottom was made in the same way. Around the neck is an iron band, and this possibly served to attach a handle which is now missing. These may serve as samples of the bronze vessels discovered.<sup>12</sup>

## 3. *Tombs*

Most of the tombs thus far cleared have been of the staircase type. That is, they have a steep flight of steps cut in a stair well, and opening at the bottom through a pivoted stone door into a roughly square chamber, which had one or more burial chambers opening off it. An exception to this type was Tomb 11. In this case the inner chamber was only a little below the level of the outer court, and no steps were necessary. The chamber itself was of large size, and was probably adapted from an already existing cavern. For with masonry walls its plan was altered into the very common *kokim* variety, a central rectangular room with three to four narrow burial recesses on its three inner sides (Fig. 15). These were low and had been roofed with slabs and closed with single large stones. The main door was probably at *a* (Plan II). Just inside is a low wall continuing the construction along the east face, and this served as a step. The other opening at *b* was secondary, as the *kokim* walls cross it, although, as at *a*, it might have been possible to step across the roof of recess *L* and thence to the floor. There was outside a later burial coffin of stone, *c*, which rested on a low wall. The forecourt had been enclosed by a low parapet, part of which still remains.

Although the tombs cleared had all been thoroughly rifled, in part in very recent years, they produced some, though by no means all, of the most interesting small objects. The tomb deposits had consisted chiefly of terra-cotta vessels, lamps, and figurines, and of coins. In two tombs fairly homogeneous groups of coins were found which date the burials. Tomb 4 had coins of Domitian, Rabbel II and Gamilath, and possibly Verus (second century); Tomb 5, silver coins of Caracalla or Elagabalus, of Gordian, and of Macrinus (third century); Tomb 6, a single silver coin of Septimius Severus (early

<sup>12</sup> See also the lamp mentioned, p. 20 and p. 42.

third century); Tomb 8, a bronze coin of Harithath and Shaqilath (first century, A. D.).

#### 4. Coins

From the standpoint of the excavator at Jerash, naturally the most interesting coins are those of Gerasa. De Sauley assigned nine or ten coins to Gerasa when he published his *Numismatique de la terre sainte*.<sup>13</sup> When Wroth published the British Museum *Catalogue of Greek Coins in Galatia, Cappadocia, and Syria* in 1899, the British Museum possessed no Gerasene coins,<sup>14</sup> but nine were later acquired and published by Hill in the *Arabia* volume in 1922.<sup>15</sup> In the excavations of 1930, the expedition was fortunate enough to find five coins which were certainly and one which was possibly coined by the city. Unfortunately, none are dated and only four of them bear traces of the name of the emperor under whom they were minted. Two of these came from the time of Hadrian, from R 13 and R 14, areas in the city which were not far apart. Two others came from the upper stratum of occupation, A 44 and A 47, but appear also to be Hadrianic, while the fifth is from Tomb 4, in which the only other identifiable coins belong to Rabbel II of Nabatea and his queen Gamilath (71-106 A. D.) and to Domitian. In some respects it resembles coins of the latter part of the second or early part of the third century, and it is probably an Antonine coin.<sup>16</sup>

Since relatively few Gerasene coins are known, it may not be amiss to catalogue these new examples. The inscriptions all run around the piece beginning at the lower left.

1. Bust r., laureate, draped, beardless; inscription practically effaced but apparently reading: AYKTPA / AΔP. . . .

R: Type almost effaced, but apparently a slender bust of Diana the huntress with elongated neck, behind which the quiver shows; inscr.:

APTEMICTYXHΓEPACΩN.

AE, 23 mm., 153 gr. = 9.91 grams. From north of A 47.

2. Bust r., laureate, undraped, beardless; inscr.: AYKTPA / AΔPIA . . .

R: Slender bust r., hair in chignon, quiver at back; inscr.:

APTΕ[MICTY]XHΓEPACΩN,

offstruck at left. AE, 18 mm., 71 gr. = 4.60 grams. From R 14.

<sup>13</sup> 1874; pp. 384 f.

<sup>14</sup> Pp. lxxxviii f.

<sup>15</sup> *Cat. of the Greek Coins in Arabia, etc.*, pp. xxxiii ff., and 31 f.

<sup>16</sup> The bust of the emperor appears to show a pointed beard; it may be a bust of Lucius Verus, who is sometimes so shown.

3. Bust r., probably laureate, undraped, beardless; inser.:

ΑΥΚΤΡΑ / ΑΔΡΙΑΝΟC.

- R: Slender bust r., draped, hair in chignon, quiver at back; inser.:

ΑΡΤΕΜΙΤΥΓΕΡΑCΩΝ.

ΑΕ, 15 mm., 46 gr. = 2.98 grams. From R 13.

4. Bust r., laureate, undraped, beardless; inser.:

ΑΥΚΤΡΑ / . . . ΙΑΝΟC.

- R: Slender bust., draped, badly corroded; inser.: ΑΡΤΕΤΥΓΕΡΑCΩΝ.

ΑΕ., 14-16 mm., 39 gr. = 2.527 grams. From Α 44.

5. Bust r., laureate, undraped, bearded (?); inser.:

ΑΥΚΑ . . . / . . . Α . . . , or ΑΥΤΡΑ . . . / . . . Α . . . .

- R: Large bust r., draped, hair in chignon, quiver at back; inser.: Α[Ρ]Τ . . . / . . . ΡΑ. ΑΕ, 13-14 mm., 36 gr. = 2.33 grams. From Tomb 4.

Both types differ slightly from those above. May be Lucius Verus.

6. Bust r., laureate, bearded, inscription lost.

R: Apparently figure seated r., on rock (?), turreted (?), hands extended on lap; inser.: ΤΥΧ / ΓΕΡ. ΑΕ, 12-13 mm., 14 gr. = .907 grams. From B 9. Ascription to Gerasa very doubtful, but the reverse type closely resembles that reproduced in Hill, *Brit. Mus. Cat. Greek Coins of Arabia, etc.*, Pl. 49, 19.

This coin could be assigned to Gerasa with some degree of certainty were it not for the following coin of almost identical reverse type which seems to belong elsewhere:

7. Bust r., radiate, draped, beardless; inser.:

. . Μ . . . / . ΝΤΩΝ (or ΝΤΩΝ).

R: Type as in 6, somewhat better preserved; inser.: . ΝΤΩΝ / Ρ . ΠΩ. ΑΕ, 14-15 mm., 25.5 grains. From near drain S. of Cistern 1.

The preserved letters of the reverse inscription can hardly be fitted into the inscription which Imhoof-Blumer read on coins of identical type, which ran,

ΑΝ . ΤΩ . ΠΡ . ΧΡ . ΤΩ . ΠΡ . ΓΕ.,

interpreted as

ΑΝΤΙΟΧΕΩΝ ΤΩΝ ΠΡΟC ΧΡΥCΟΡΟΑ ΤΩΝ ΠΡΟΤΕΡΟΝ ΓΕΡΑCΩΝ.<sup>17</sup>

One is therefore left in doubt as to the city of both 6 and 7, and the only certainly Gerasene coins so far discovered belong to the Hadrianic series.

It is to be observed that the coins range in size from 13 or 14 mm. to 23

<sup>17</sup> See Wroth, *Brit. Mus. Cat. Greek Coins of Galatia, etc.*, lxxxviii f., and Hill, *op. cit.*, p. xxxiv.

mm., in weight from 14 gr. to 153 gr. No two of them have the same weight, although Nos. 4 and 5 are near enough together for all practical purposes. Nos. 1, 2, 4, 5, and 6 can be brought into a roughly-related series, of which each member is approximately half that of the preceding. However, this irregularity in weight is not at all remarkable, for the same holds true of practically all Roman coins.

Next to coins of Gerasa itself, coins of neighboring countries claim the historian's interest as showing the direction and extent of communications. Of Jewish coins, one found is apparently to be assigned to John Hyrcanus and two to Alexander Jannaeus. They were of the familiar types with the double cornucopias on the reverse and a Hebrew inscription within a wreath on the obverse.

There was one coin of Archelaus, the obverse showing a bunch of grapes and a suggestion of the inscription HP . . OY, the reverse a tall helmet with cheek pieces and double crest, seen from the front, and a faint inscription . . N.PX. There was one of the familiar coins of Herod Agrippa I with a fringed umbrella and the inscription A[Γ]PIT[A] BACIAEΩ[C] on the obverse and on the reverse three heads of grain issuing from a leaf.

Of the procurators of Judea one coin appeared of the type which shows on the obverse an ear of barley and on the reverse a palm tree with two bunches of fruit. Of the obverse inscription only KAICA appears, the remainder being off-struck. The A of the date is quite clear. The second letter is probably stigma and the coin, therefore, belongs to the thirty-sixth year of Augustus, the first year of Coponius, A. D. 5-6.

Six Nabatean coins were found. Of these four are of Harithath (Aretas) IV and his queen Shaqîlath (9 B. C.-40 A. D.), showing the busts of the king and queen jugate on the obverse and their names between two crossed cornucopias on the reverse. One shows a single bust on the obverse with crossed cornucopias on the reverse. As the inscription is lost, the ascription to Harithath IV is only probable. A sixth coin comes from the Rabbel II and his queen Gamilath, according to the partially effaced inscription between the cornucopias, but only one bust is visible on the badly-worn obverse.

Coins of other Syrian cities or countries were surprisingly few. Two may be assigned to Neapolis. One of them is uncertain and undatable but has the head of a bearded emperor. The other comes from the time of Macrinus and the inscriptions on both sides are reasonably clear. One at least is from Tiberias. Of the cities of the Decapolis none are certainly represented, though there are coins which may come from Bostra, Damascus(?), and Philippopolis.

Indeed, the only city from which many coins have come is Antioch on the

Orontes. Since this city had always an imperial mint, the fact is not surprising. Five coins were found showing the bust of the *tyche* of the city draped, with turreted crown and veil and above a ram running and looking backward. A sixth coin, indicated by the imperial head as belonging almost certainly to the time of Elagabalus, shows a female figure seated left. The type cannot be clearly made out from the badly-corroded piece, but it is almost certainly that of the *tyche* of the city seated on a rock with the river-god Orontes swimming at her feet. Above her the ram with its head turned back runs to left. In the field by her head and shoulders are  $\Delta/E$ , and  $S/C$ . The inscription is sufficiently clear: ANTIOX/ΕΩΝΜΚΟΛ.<sup>18</sup>

Four of these coins belong to the time of Philip, as the inscriptions clearly show, and these four were all found in Room R 10.<sup>19</sup> One belongs to the time of Elagabalus, as already noted, and the sixth either to his time or that of Severus Alexander.<sup>20</sup> All are large coins, from 27 to 33 mm. in diameter and from 196 to 303 gr. in weight.

During the autumn season six silver coins were discovered, all but one in tombs, one in Tomb 6a and four in Tomb 5. The oldest of all came from the upper occupation layer, from just south of A 32. The obverse bears a laureate head turned to the right and the inscription

IMPTRAIANOAVGGERDAC.MTPP.

The reverse has a figure standing half left, naked to the waist, the right hand raised. The inscription runs, COSVPPSPQR....OPRINC. The coin is 18 mm. in diameter and weighs 48 gr.

Of the other coins, one belongs to Septimius Severus, one to Gordian, one to Macrinus, one to one of the third-century Antonines, Caracalla or Elagabalus, and one to one of the long list of emperors whose names began with Marcus Aurelius, the distinctive part of the title being struck off the flan. Since it was found in Tomb 5 with coins of Macrinus and Gordian, it doubtless belongs to the first half of the third century. These coins, of course, date Tomb 5 to a period just before the middle of the century.

The oldest coin discovered is that of a Seleucid, probably Antiochus VI. Then in chronological order come the Hasmonean and Herodian coins, and those of Nabatea. Of emperors, the first to be represented is Domitian. Trajan follows, then Hadrian, but no others of the second century until Septimius Severus. Strangely enough, the coins found during the year know nothing of the city's greatest building period in the time of the Antonines.

<sup>18</sup> Cf. Wroth, *Cat. of Greek Coins of Gal., etc.*, pp. 205 f., Nos. 451-62.

<sup>19</sup> See above, pp. 15 f.

<sup>20</sup> Cf. Wroth, *op. cit.*, pp. 209 f., Nos. 484-89.

With the third century coins become numerous. Nearly all of the emperors and some of the ladies of the imperial families are represented, Gallienus with the largest number, a dozen pieces. In all about thirty coins of the third century are clear enough to be worth recording, of the fourth century nearly fifty. The fifth century from Arcadius to Anastasius is practically a blank, except for a few which may belong to Theodosius II. Some forty coins have been found of Anastasius and the emperors following down to the Arab invasion, most of them clearly recognizable by their large *M* or *K*. The last Christian coin is one of Justin II restruck by Heraclius. About thirty well-preserved Arabic coins have been found.

This is, of course, but a preliminary report of the coins from the excavation of a fragment of the ancient city. Final and certain conclusions cannot be reached. Something, however, is indicated. The coins assist one to visualize the Transjordan city in communication with its nearest neighbors, western Palestine and Nabatea, and later with Antioch on the Orontes. Other connections may be suggested by the identification of several peculiar obscure pieces. But most of all, the coins emphasize the all-pervasive influence of Rome in the fourth century. Not only do the coins mentioned above, which are more or less definitely identified, show the greatest bulk in the fourth century, but some twenty-five more or less legible ones belong to either the fourth or fifth century. Constantine's monetary reforms evidently gave a remarkable unity to the financial system of the empire and provided it with an abundant coinage.

##### 5. *Miscellaneous Small Finds; Lamps*

Samples of bronzes discovered have already been given. In addition, among other objects a fine bronze lamp may be mentioned.<sup>21</sup> Pottery lamps form, numerically speaking, the bulk of the small finds and present a most interesting series for future study. The chronological fixation of various types in the evolution of the lamp will eventually prove of great value for dating the various strata and the tombs. Since the excavations of 1930 dealt almost exclusively with the Roman and Byzantine periods, the large proportion of the lamps discovered belong to those periods. The number of Byzantine lamps was especially large because of the discovery in front of the temple of Artemis of a lamp-maker's factory, where there were molds and one hundred and fifty finished lamps in one group besides many scattered ones. The Byzantine lamps represent an interesting variety of types.

In the caves and tombs which were cleared other types of lamps were found.

<sup>21</sup> See above, p. 37.

One of the most interesting, unfortunately badly broken and only partially preserved, was in the shape of a ship with a full-length nymph or goddess on the deck, the bust of a silenus under the prow, and a Greek inscription scratched in the wet clay on the bottom calling it "A gift of thanks to the gods." It was very well molded and must have been a beautiful piece. At the antipodes from this elaborate and artistic creation, at the end of the process of evolution, was a very late lamp which, like many modern Palestinian lamps, returned to the open-bowl type with pinched nozzle characteristic of the Early Iron Age.

In the pottery factory in front of the temple were also found two molds for Christian "ikons," one representing the baptism of Jesus, the other Daniel in the lion's den.<sup>22</sup> Both exhibit well-known Byzantine art tradition in the reproduction of these scenes.

Fragments of many well made and attractive figurines were found. Unfortunately only two whole ones have been unearthed, from a second-century tomb, No. 4.<sup>23</sup> However, these and the numerous fragments promise future discoveries of great interest.

## 6. *Mosaics*

As already noted above,<sup>24</sup> mosaic floors, fairly well preserved and containing inscriptions, were found during both campaigns of 1930. In the spring, under A 2 a house floor was found which was rather tastefully carpeted with a simple mosaic in red, brown, and white. A border consisting of a simple fret enclosed a field of squares, the intersections being double frets. In the center was a medallion containing an inscription with the prayer: "Lord, help thy servants Ziper and Zineid and Theodorakis and Marous."<sup>25</sup>

In the autumn a series of rooms belonging to an ecclesiastical establishment connected doubtless with St. Theodore's church was found just west of the church.<sup>26</sup> The inscription runs: "I am the most happy place of the second

<sup>22</sup> Identified by Mr. Crowfoot.

<sup>23</sup> See *Bulletin Am. Schools of Or. Res.*, 40 (Dec. 1930), p. 10.

<sup>24</sup> See pp. 8, 9, 12, 13, 17, 18.

<sup>25</sup> The name *Mappous* was found in the second season of excavations at Doura, see Baur and Rostovtzeff, *Excavations at Doura-Europos conducted by Yale University and the French Academy of Inscriptions and Letters; Preliminary Report of the Second Season of Work, 1928-29*, New Haven, 1931, p. 128. At Jerash the form is an accusative spelled *Μαροῦσα*. Professor W. F. Albright has called my attention to the similarity of the names and to the fact that the sigma-alpha ending in the Jerash example proves that the word cannot be connected with *μαρμα*.

<sup>26</sup> See above, p. 17.

order, or grade (τάξις), of the male hymn-singers." It is to be hoped that the room belonging to the "first group" will appear in the unexcavated area to the west of this room. The design consisted of a border of a simple fret between lines of brown and black enclosing a series of geometrical figures running diagonally across the field. Among these figures were circles, squares, and triangles, nearly all of them so treated that a great variety of crosses appeared. A prominent feature was a large pointed ovoid leaf or fruit. The colors are browns, blue, black, and green against a cream background. At the foot of the steps leading from A 42 to A 46 was a long rectangular "mat" with diagonal squares in brown (see Pl. 16).

By comparison with other mosaics these two would probably be dated in the fifth or even the sixth century. On the whole, the house mosaic would seem to be the better work and probably, therefore, the earlier of the two. So far as other evidence goes, there is nothing to fix their date precisely, but it would appear that the complex of rooms to which A 2 belongs were built and used between 400 and 500 A. D.<sup>27</sup> Probably A 42 belongs to much the same period. It seems somewhat coarser, and though it is artistically more ambitious and more elaborate in color, it is less tasteful to modern eyes. It can hardly be older than the church and, therefore, must come from the end of the fifth or the beginning of the sixth century.

Other mosaics, found in outlying places, have been noted, then covered again, to be raised when desired by the Department of Antiquities for preservation in their museum or for export abroad. Wherever Byzantine buildings of any size or importance are found, there are usually mosaics. It is to be hoped that eventually others of earlier date will appear.

### 7. *Inscriptions*

The season of 1930 was not remarkably rich in inscriptions. Jerash has already provided enough to form a respectable corpus. Visitors before the war found and published a large number which were on or near the surface.<sup>28</sup> Many more have come to light during the clearances and restorations made by Mr. Horsfield and the excavations of Mr. Crowfoot.<sup>29</sup>

The bulk of effort in the campaigns of 1930 was devoted to private houses and to the dumped débris of the temple court where few inscriptions could be expected. However, several came to light, as already noted. One was

<sup>27</sup> See p. 13, above.

<sup>28</sup> See Lucas, *Mit. u. Nach. d. deutsch. Pal.-Vereins*, 1901, pp. 33-47, 49-82.

<sup>29</sup> See especially, Père Abel in *Rev. Biblique*, 1927, pp. 249-256, and Mr. A. H. M. Jones in *Journal of Roman Studies*, 18 (1928), 144-178; 20 (1930), 43-54.

but a fragment of a base of an hexagonal pedestal mentioning a [Ga]ius Gaianus princ[eps], found in the filling in the door between A 8 and A 14.<sup>30</sup> Two others were in mosaic floors.<sup>31</sup> Others were on lamps and pottery. One large block was found in the débris filling the basement corridor along the north side of the Temple of Artemis. It belongs to the second century of the Pompeian era (47-147 A. D.), and was dedicated to ΘΕΑΤΑΤΡΩΑΑΡ—, the remaining letters of the name being lost. Doubtless Artemis was the ancestral goddess named. The inscriptions will be appropriately published at a later time.

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The account of the discoveries of the two campaigns of 1930 might have been much fuller and the list of objects could be indefinitely extended. The above is sufficient to indicate the most important scientific results of the year's work and to illustrate the rich opportunities which Jerash offers to the excavator.

<sup>30</sup> See above, p. 13.

<sup>31</sup> See above, pp. 43 f.



Plate 1. Oven in Room A 8



Plate 2. Pottery group from R 5 after cleaning



Plate 3. Debris over R 10



Plate 4. Front of little temple with colonnade of court, altar, steps, portico,  
vestibule with base and capital of anta, and cella

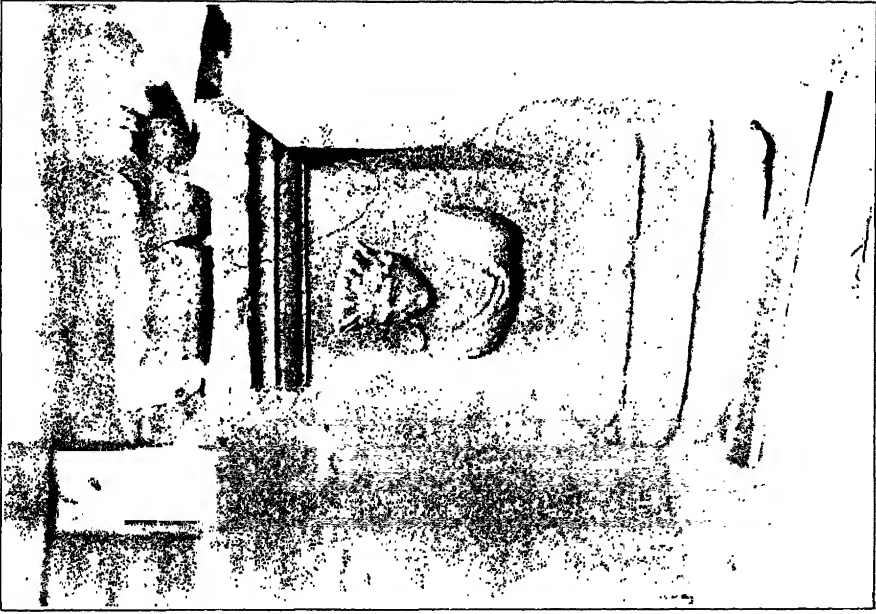


Plate 6. Altar found in debris above little temple with radiate  
head of solar (?) deity



Plate 5. Anta - base and capital—of little temple

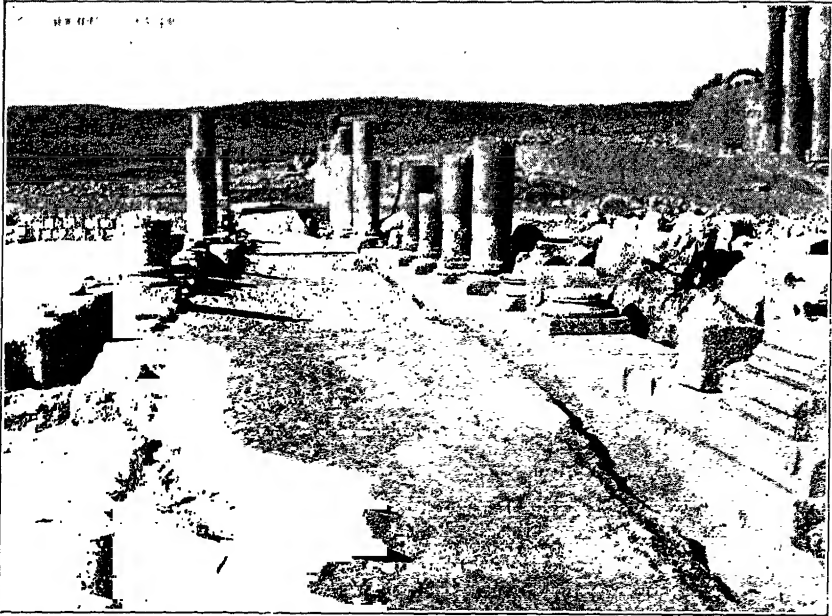


Plate 7. South colonnade of court surrounding Artemis Temple  
at end of autumn campaign, looking west

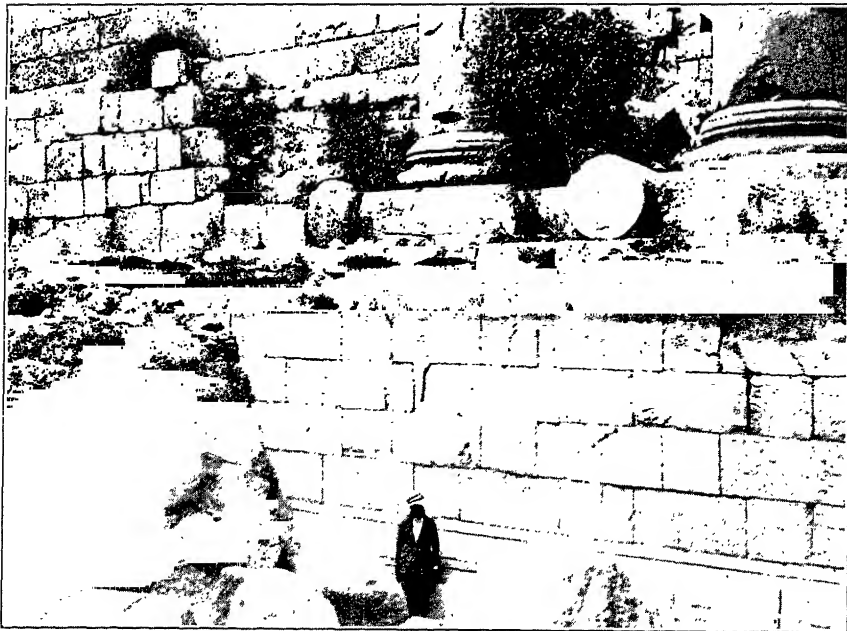


Plate 8. Podium of Artemis Temple at southeastern corner, showing base  
and top molding; Arab fortress wall above



Plate 9. Corridor under north peristyle of Artemis Temple after clearance

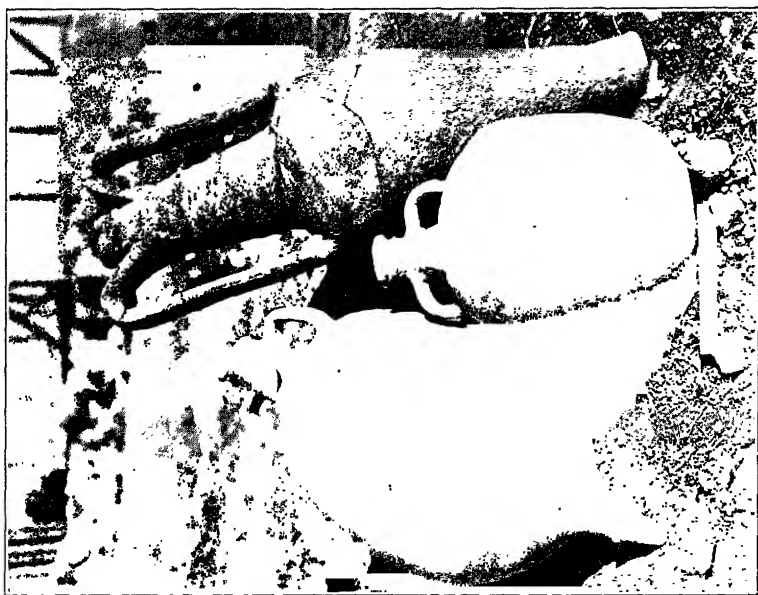


Plate 11. Pottery from R 5 after cleaning



Plate 10. Door to stairway leading from east end of north corridor up into the cella of the Temple of Artemis

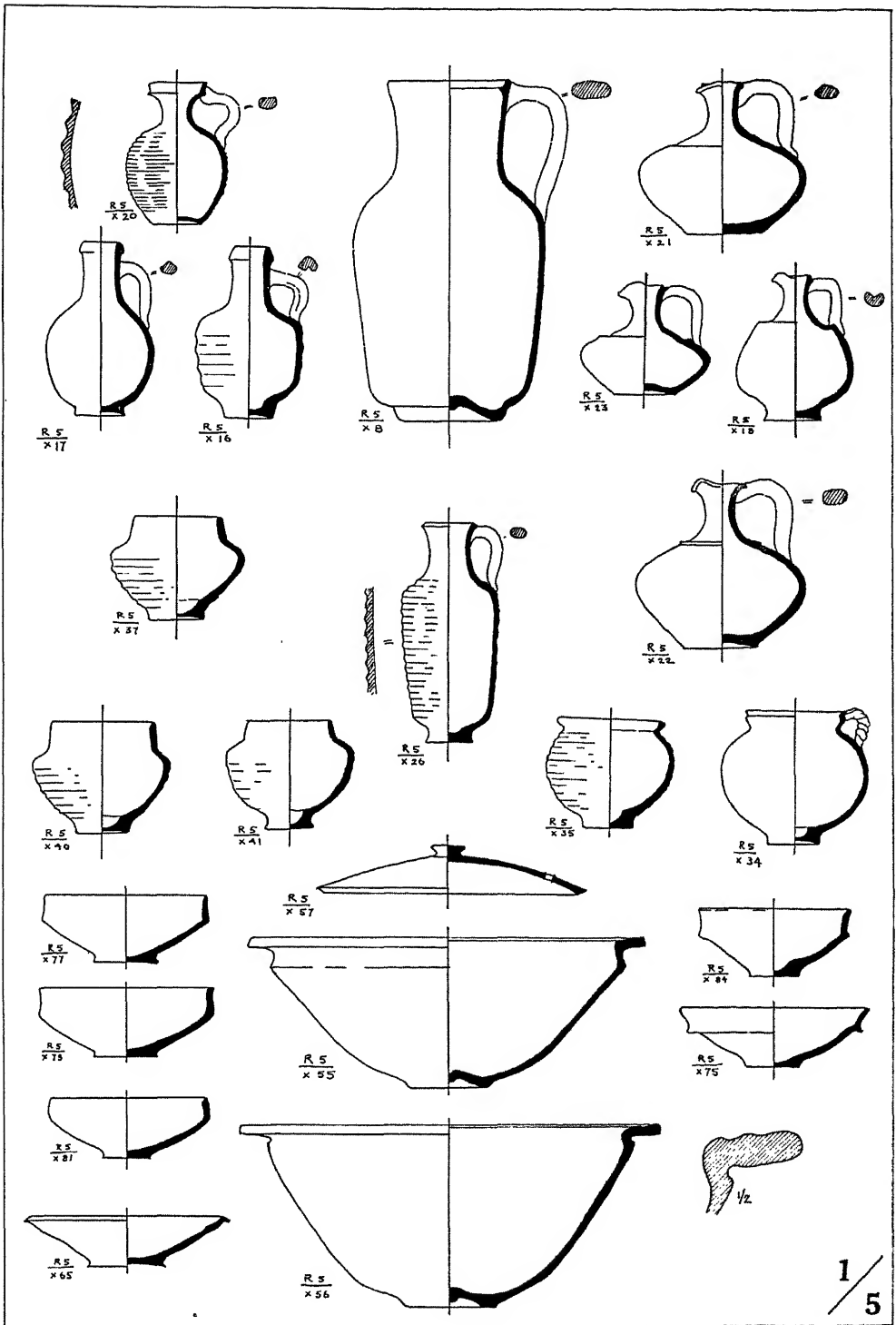


Plate 12. Pottery shapes from R 5

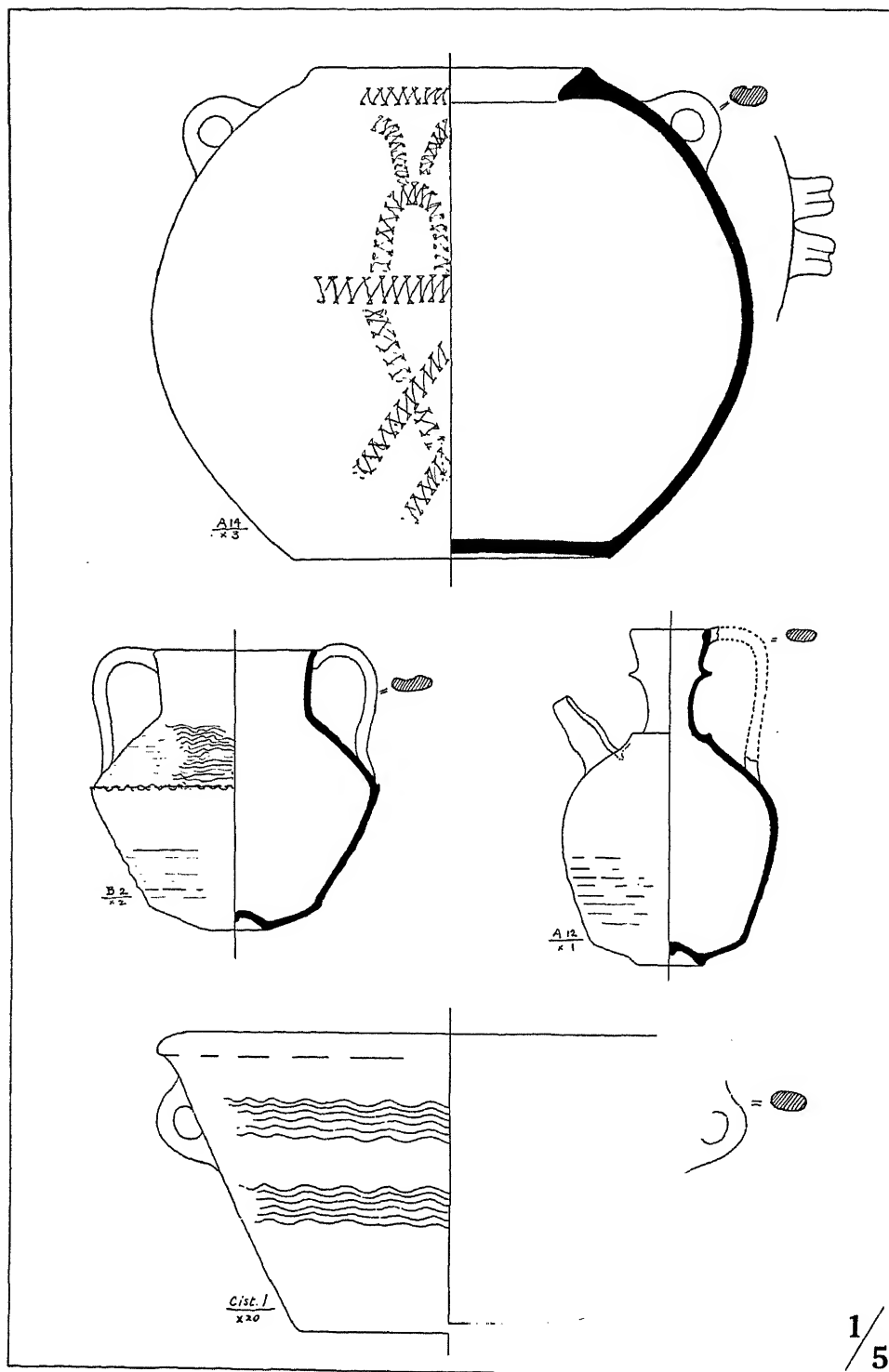


Plate 13. Pottery shapes from A and B strata

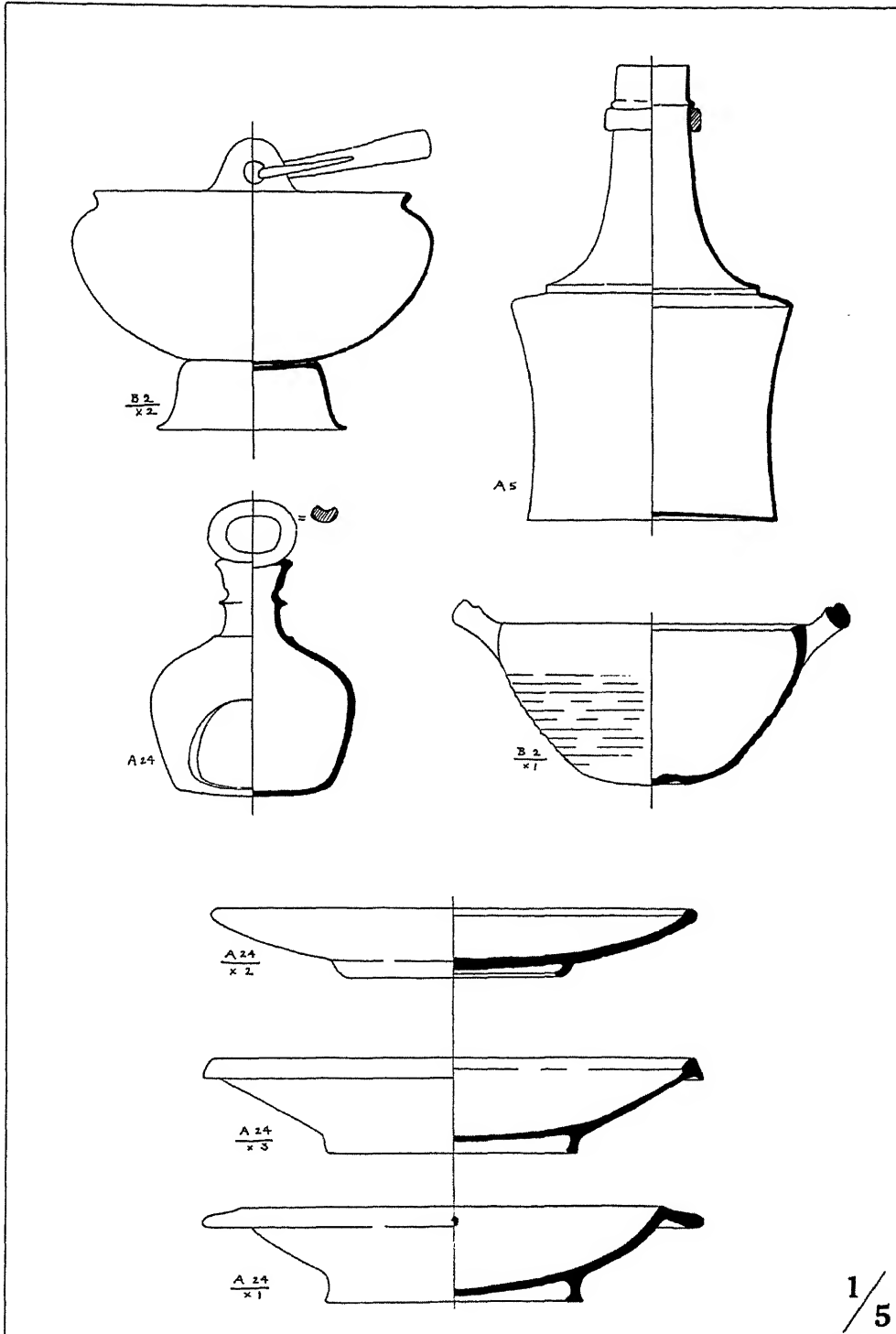


Plate 14. Pottery and bronze from later periods of occupation



Plate 15. Tomb 11

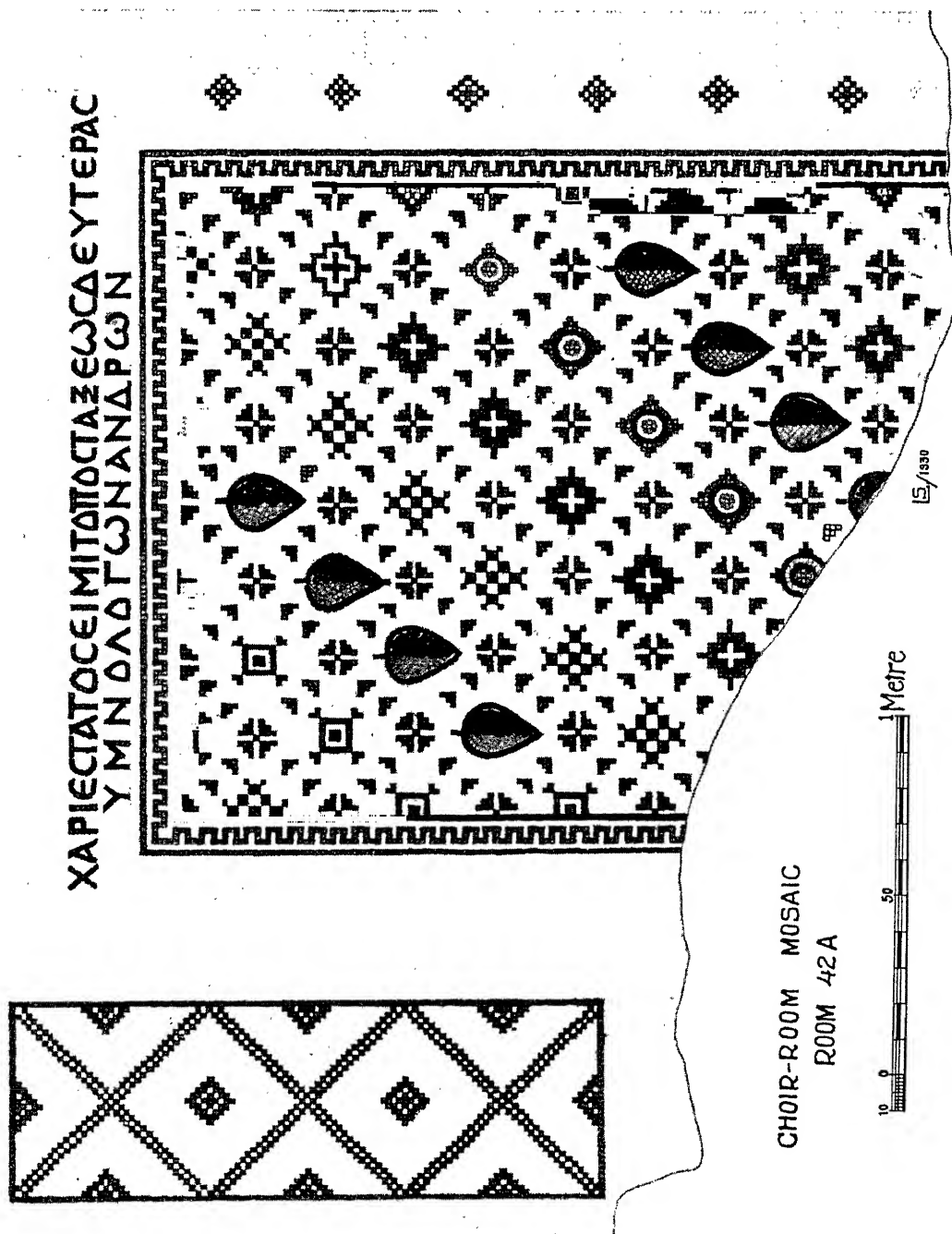
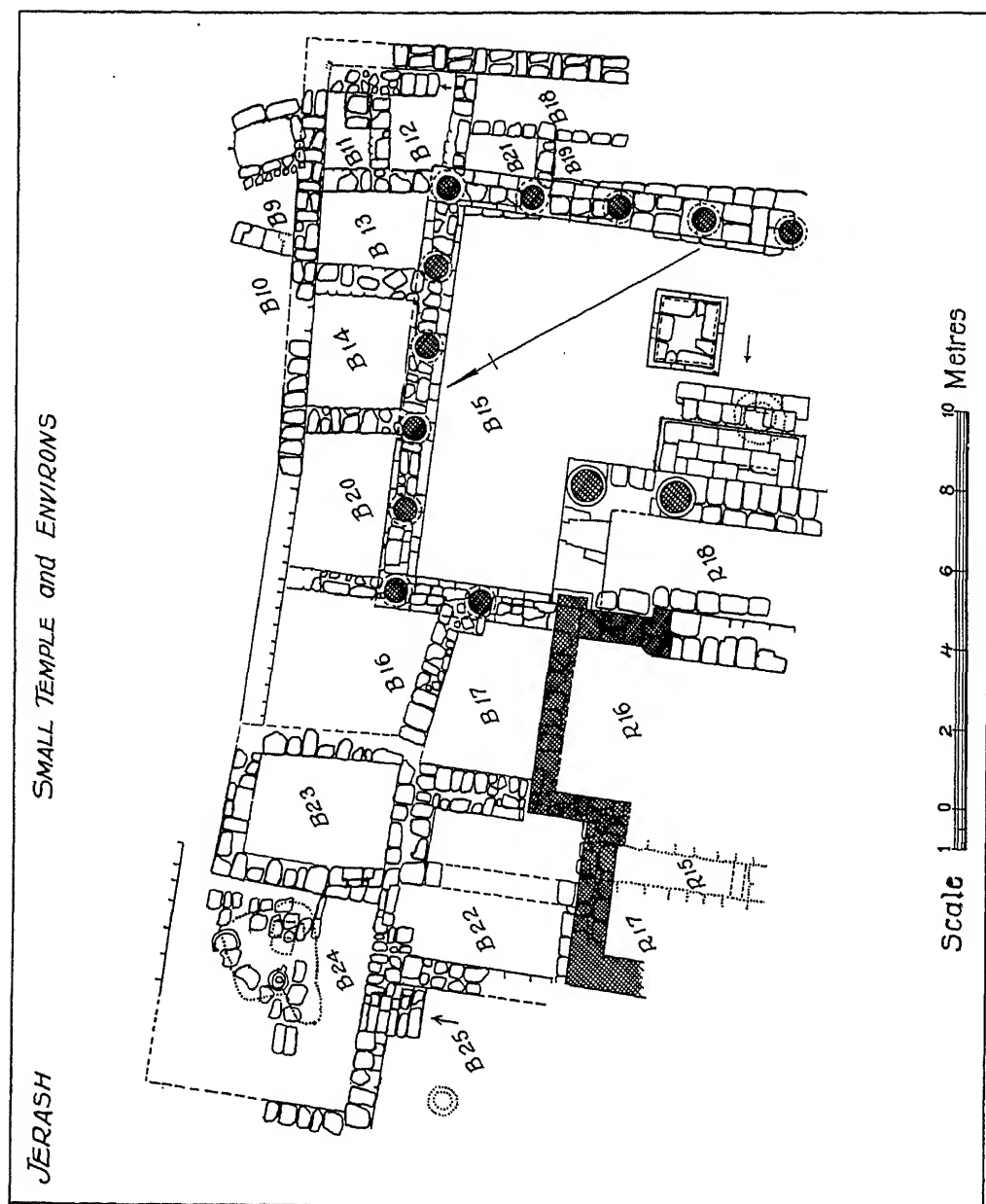
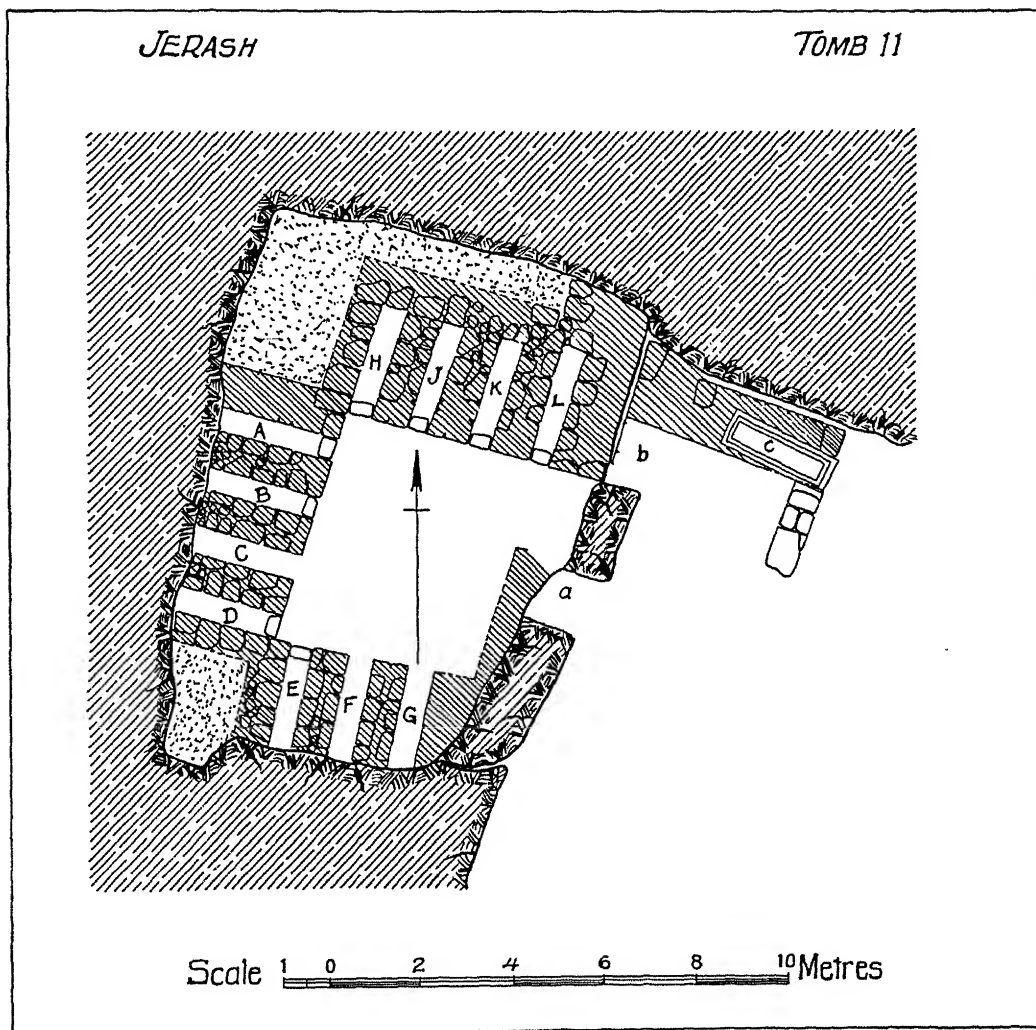


Plate 16. Mosaic found in Room A 42, the "choir mosaic"



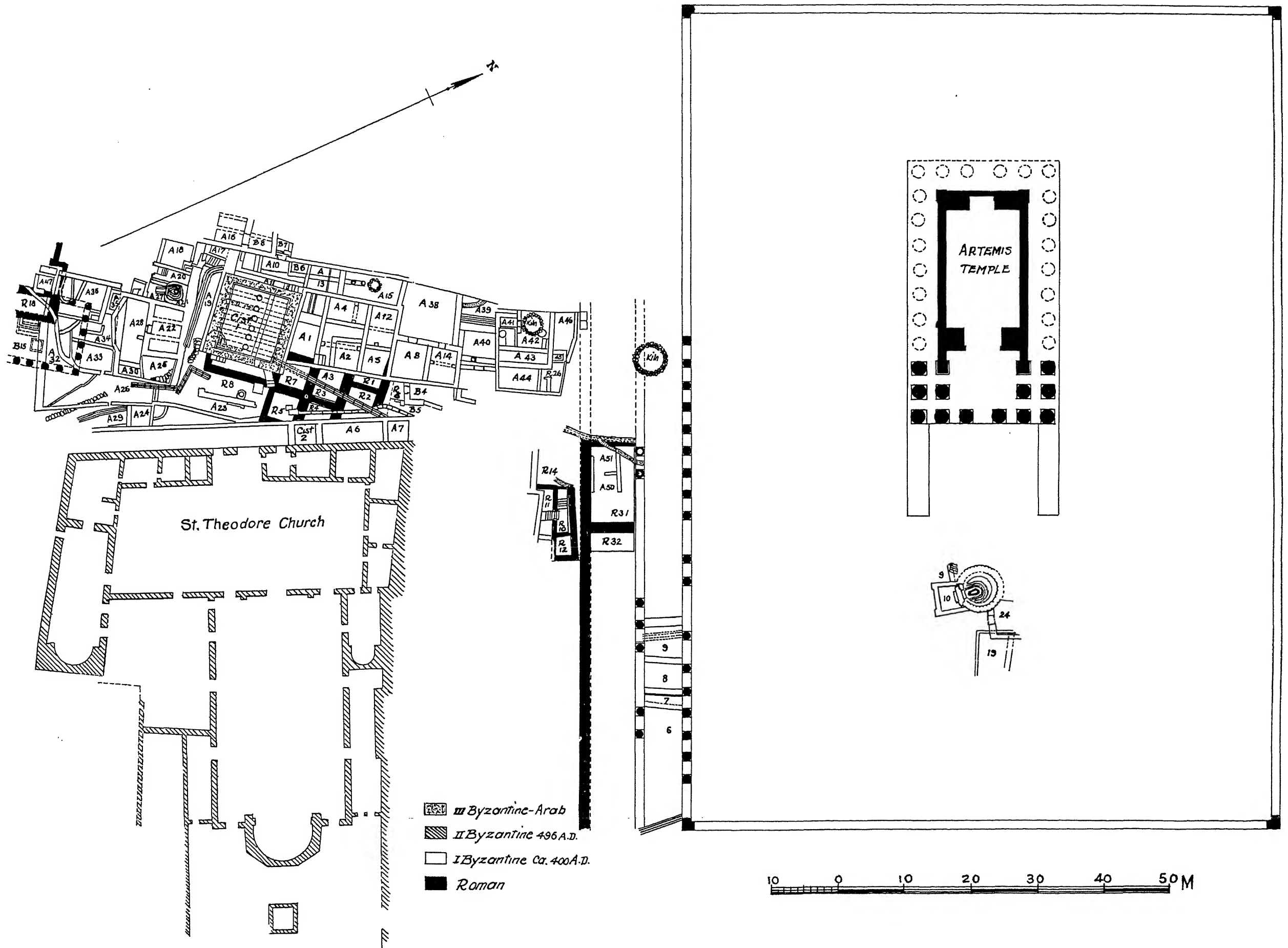
Plan I. The "little temple." The hatched portions represent the structure of the temple



Plan II. Tomb 11 showing plan of masonry *kokim*



# JERASH EXCAVATIONS, 1930



Plan III. Center of excavation area in 1930



# LIST OF ABBREVIATIONS

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<i>AG</i>	Delitzsch, <i>Assyrische Grammatik</i> (1916).
<i>Ar. G</i>	Socin, <i>Arabische Grammatik</i> (1913).
<i>BA</i>	<i>Beiträge zur Assyriologie.</i>
<i>BAG</i>	Ylvisaker, <i>Zur Babylonischen und Assyrischen Grammatik</i> (Leipzig, 1909).
<i>B. Gr</i>	Brockelmann, <i>Grundriss.</i>
<i>BLHS</i>	Bauer-Leander, <i>Hebräische Sprache</i> (1922).
<i>BW</i>	Barton, <i>Babylonian Writing</i> (1913).
<i>CS</i>	Chiera-Speiser, <i>Selected Kirkuk Documents</i> , <i>JAOS</i> , vol. 47, pp. 36-60.
<i>CT</i>	<i>Cuneiform Texts from the Babylonian Tablets in the British Museum.</i>
<i>EHA</i>	Sidney Smith, <i>Early History of Assyria</i> (1928).
<i>G</i>	Gadd, <i>Tablets from Kirkuk</i> , <i>RA</i> XXIII (1926), pp. 55 ff.
<i>H</i>	Chiera, <i>Texts of Varied Contents</i> (1929).
<i>HWB</i>	Delitzsch, <i>Handwörterbuch.</i>
<i>JAOS</i>	<i>Journal of the American Oriental Society</i> (New Haven).
<i>JRAS</i>	<i>Journal of Royal Asiatic Society.</i>
<i>KAJ</i>	Ebeling, <i>Keilschrifttexte aus Assur juristischen Inhalts</i> (1927).
<i>KBAG</i>	Bauer-Leander, <i>Kurzgefasste Biblisch Aramäische Grammatik</i> (1929).
<i>M</i>	<i>OLZ</i> (1902).
<i>N</i>	Chiera, <i>Inheritance Texts</i> (1928).
<i>NKRA</i>	Koschaker, <i>Neue Keilschriftliche Rechtsurkunden aus der El-Amarna Zeit</i> (1928).
<i>OLZ</i>	<i>Orientalische Literaturzeitung</i> (Leipzig).
<i>RA</i>	<i>Revue d'Assyriologie</i> (Paris).
<i>Rec.</i>	<i>Recueil de Travaux</i> (Paris).
<i>S</i>	Speiser, <i>A Letter of Saushshatar and the Date of the Kirkuk Tablets</i> , <i>JAOS</i> (1929).
<i>Sp.</i>	Speelers, <i>Recueil des Inscriptions de l'Asie Antérieure</i> (1925).
<i>SAB</i>	Böhl, <i>Die Sprache der Amarnabriefe</i> (1910).
<i>TCL</i>	Contenau, <i>Contrats et Lettres d'Assyrie et de Babylonie</i> (1926).
<i>UBAG</i>	Ungnad, <i>Babylonisch-Assyrische Grammatik</i> (1925).
<i>VAB</i>	Vorderasiatische Bibliothek.
<i>VAB V</i>	Schorr, <i>Urkunden des altbabylonischen Zivil- und Prozessrechts</i> (1913).
<i>VAB VI</i>	Ungnad, <i>Babylonische Briefe aus der Zeit der Hammurabi-Dynastie</i> (1914).
<i>VAG</i>	Lewy, <i>Das Verbum in den altassyrischen Gesetzen</i> (1921).
<i>VAS</i>	Vorderasiatische Schriftdenkmäler, Berlin.
<i>VEB</i>	Ebeling, <i>Das Verbum der El-Amarna Briefe</i> , <i>BA</i> VIII, 39 ff. (1910).
<i>VS</i>	Vorderasiatische Schriftdenkmäler der staatlichen Museen zu Berlin.
<i>ZA</i>	<i>Zeitschrift für Assyriologie.</i>

## THE VERB IN THE KIRKUK TABLETS

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To date, the texts of 344<sup>1</sup> Kirkuk<sup>2</sup> tablets have been published.<sup>3</sup> Of 18 additional tablets, only the transliterations and translations have thus far appeared;<sup>4</sup> the texts are still unpublished. Primarily this paper is a detailed

<sup>1</sup> Thus: *CT* II 21 (1 tablet); *OLZ* 1902 (1 tablet); *VS* (5 tablets); *Sp*, 1925 (2 tablets); *G* (82 tablets); *TCL* 1926 (46 tablets); *N* 1927 (100 tablets); *H* 1929 (107 tablets). Cf. note 3.

<sup>2</sup> For spelling and use of the term "Kirkuk" for these tablets, cf. Speiser, "A Letter of Saushshatar and the Date of the Kirkuk Tablets", *JAOS* 1929, p. 269, note 1.

<sup>3</sup> Texts, transliterations and translations to date are as follows:

*CT* II 21—one tablet. Translation by Pinches in *JRAS* 1897, p. 599 ff.

*M*—*OLZ* 1902, p. 245 (1 tablet). Transliteration and translation, *ibid.*, by Meissner. This tablet was republished with transliteration and translation by Scheil, *Rec.* XXXI, p. 56.

*VS* Vol. I, pp. 106-110; 5 tablets, copied by Ungnad. These are in a very fragmentary condition.

*TCL*—Contenau, 1926; 1-46. This work is Volume X of the *Textes Cuneiformes*, published by the Department of Oriental Antiquities of the Louvre. Numbers 16 and 17 of these tablets correspond to the two tablets previously published by Scheil. The Kirkuk material in *TCL* is in a very fragmentary condition. Transliterations and translations of the following tablets are published in Koschaker, *NKRA* (1928):

*TCL* 46, on p. 166 ff.

*TCL* 7, on p. 171.

*TCL* 8, on p. 174 ff.

*TCL* XX, on p. 175 ff.

*Sp* (1925), cf. note 5.

*G*—*RA* XVIII (1926), p. 55 ff. These tablets are fairly well preserved. Introduction, transliteration and translation, *ibid.*

*N*. This is Volume I of the "Publications of the Baghdad School, Texts", and contains the texts of 100 tablets in almost perfect condition. Texts i, 2 and 3 are transliterated and translated by Chiera-Speiser in the *JAOS* 1927, pp. 37 ff. Cf. note 4. The following texts are translated and transliterated in *NKRA*:

*N* 8, on p. 168.

*N* 25, on pp. 168-69.

*N* 82, on p. 170.

*N* 87, on p. 172.

*N* 78, on p. 173.

*H*. This is Volume I of *Excavations at Nuzi* and Volume V of the *Harvard Semitic Series*. It contains the texts of 107 tablets in very good condition. For contents it is by far the most important collection of the group. For this volume, Dr. Speiser's transliteration, translation and notes (still in manuscript and soon to be published) have been available to me.

<sup>4</sup> *CS*—*Selected Kirkuk Documents*, Chiera and Speiser, *JAOS* Vol. 47, pp. 36-60. Of the

study of the verb forms found in all these texts:<sup>5</sup> the orthography, the phonetic changes, the verb structure and finally, a detailed and complete tabulation of each verbal form in all its variant writings.<sup>6</sup> Running parallel with this main purpose is the aim to differentiate between the Middle Babylonian<sup>7</sup> represented by the extant Kirkuk texts and the Middle Assyrian<sup>8</sup> as represented by the Assyrian Law-book.<sup>9</sup> The date of the former, as has now been made quite certain by external evidence,<sup>10</sup> is the middle of the second millennium B. C. The date of the Law-book is not so certain.<sup>11</sup> It is not much later than the middle of the second millennium B. C. The dates are therefore sufficiently close to make such comparative<sup>12</sup> study advisable.<sup>13</sup>

twenty transliterations and translations given, the texts of the first three have now been published, *c. g.*, Chiera-Speiser i; 2; 3; correspond to *N* 1; 52; 59. For the Semitic scholar who does not read cuneiform, these twenty selections are invaluable. Another tablet is transliterated and translated by Speiser in *JAOS* 1929. Cf. note 1.

<sup>5</sup> Only the two Speelers tablets (cf. note 3) are not included in this study, as the texts were not available.

<sup>6</sup> The transliteration is based on the system of Thureau-Dangin, *Le Syllabaire Accadien* (1926).

<sup>7</sup> *NKRA*, p. 19 ff., has pointed out that the language of these tablets belongs to the Babylonian and not the Assyrian dialect of the time. The present study makes that conclusion certain. The term Middle Babylonian will be used for the language of these tablets; the term Old Babylonian for the language of the Hammurabi Code, the legal documents and letters of the First Dynasty of Babylon (cf. *VAB* V; *VAB* VI); the term Late Babylonian will be used for texts of the first millennium B. C.

<sup>8</sup> The term Old Assyrian is to be applied to the texts of the Cappadocian tablets; the term Middle Assyrian to the Assyrian Law-book (this was formerly called, The Old Assyrian Laws, cf. following note); the term Late Assyrian to the texts of the first millennium B. C. Cf. *NKRA*, pp. 2-4.

<sup>9</sup> For text, cf. *NKRA*, p. 1, note 4. For literature, *ibid.*, p. 2, note 1. The monograph of Lewy on the verb in the Assyrian Law-book: *Das Verbum in den Altassyrischen Gesetzen* (for name, cf. note 8) will be used in this study as a basis for the treatment of the verb in the Kirkuk tablets.

<sup>10</sup> For a statement of the problem of date in the Kirkuk tablets, cf. *S*, p. 269 ff.

<sup>11</sup> For date of Assyrian Law-book, cf. *NKRA*, p. 2 ff.; also *EHA*, p. 318: "One copy of this (i. e. the code) extant probably dates to the fourteenth or thirteenth century B. C., the others are late; the original may not have been more than a century older."

<sup>12</sup> For a comparative study of Late Assyrian and Late Babylonian, cf. *BAG*.

<sup>13</sup> This comparative study of the two dialects (i. e. Middle Assyrian and Middle Babylonian) can now be further pursued by a comparison with the texts published in *KAJ*. These texts are of the fourteenth and thirteenth century B. C. (cf. *NKRA*, pp. 5-9).

## I. ORTHOGRAPHY

## 1. LENGTH OF SYLLABLES

(A) *Length of Vowels.*

No definite rule is followed in these tablets for expressing the length of vowels. The following examples are conclusive:

## (a) Initial Vowels.

*i-ha-az* (*H* 67. 18) 'he will take' (to wife)

also *i-ih-ha-az* (*G* 12. 8)

*ú-la-ad* (*H* 67. 17) 'she will give birth'

also *ú-ul-la-ad* (*H* 80. 19).

## (b) Medial Vowels.

*il-te-e-(ma)* (*H* 47. 36) 'he prevailed'

also *il-te-(ma)* (*H* 48. 33)

*ma-a-ru* (*H* 12. 22)<sup>220</sup>

also *ma-a-a-ru* (*G* 2. 32).

## (c) Final Vowels.

*na-ši* (*H* 56. 31) 'he shall bear'

also *na-ši-i* (*H* 93. 15)

*im-ta-nu* (*H* 52. 17) 'he counted'

also *im-ta-nu-ú* (*G* 28. 18).

On examining the preceding illustrations it becomes evident that vowels which are etymologically long are often written defectively. This is true of all the possible positions of the vowel. The orthography, therefore, must not be used as a criterion for determining the length of a vowel.<sup>14</sup>

(B) *Gemination of Consonants.*

Gemination of consonants, etymologically justified, is often not expressed.<sup>15</sup> Thus:

*i-na-ak-ki-is* (*H* 55. 21) 'he shall cut off'

also *i-na-ki-is* (*H* 85. 30)

*ar-ta-ak-ka-as* (*G* 42. 9) 'I tied'

also *ir-ta-ka-as* (*C-S* 6. 4) 'he tied'.

<sup>14</sup> The same holds true of the Amarna Letters; cf. *VEB*; also for the Assyrian Law-book, cf. *VAG*, p. 6.

<sup>15</sup> Similarly in the Amarna Letters, cf. *VEB*, p. 40. For the Assyrian Law-book, see *VAG*, p. 6.

The practical advantage of bearing this fact in mind is illustrated by the following: the form *ú-sí-mi-ḫu-eš* (*H* 65.4) 'he made him joint heir' at first glance, looks to be a II<sub>1</sub> stem. It is, however, a II<sub>2</sub> form. The changes involved are *\*ustimiḫu* > *\*ussimiḫu* > *usimiḫu*.<sup>16</sup> The form *us-sí-im-mi-ḫu-un-ni-(ma)* (*G* 29.10) 'they made me joint heir' proves this conclusively.

## 2. THE SIGNS FOR *i*, *e*

The Kirkuk texts show a greater care in the orthography of these signs than the Amarna Letters<sup>17, 18</sup> or than the Assyrian Law-book. Of this latter, Lewy<sup>19</sup> writes: "Zwischen den allein stehenden Vocalen *e* und *i*—auch wo sie nicht nur als Vorschlagsvocale stehen—mindestens in Wortanlaute noch geschieden wird, während in der Verbindung des Vocals mit einem Consonanten die *e* und *i*-haltigen Silbenzeichen bereits promiscue gebraucht werden."

On the other hand in the Kirkuk texts, these signs are employed correctly in all positions:

### (a) *i*-Vowel.

*i-il-la-ak* (*H* 50.12) 'he shall go'

*i-iz-zi-iḫ* (*H* 57.14) 'he will leave'

*ul-te-ši-i-(mi)* (*H* 49.26) 'he announced'.

### (b) *e*-Vowel.

*il-te-e-(ma)* (*H* 47.36) 'he prevailed'

*il-te-e* (*G* 35.31) 'he prevailed'

*(a-na) na-še-e* (*CT* II 21.7) 'for carrying'.

The above illustrations show the correct use of the *e* and *i*-signs when these are employed to express *e* and *i*-vowels.<sup>20</sup> This correct writing is also consistently adhered to when writing composite syllables containing the *e* and *i*-vowels,<sup>21</sup> thus:

*um-te-eš-ši-ir-(mi)* (*H* 14.6) 'I have released'

*ša-ki-in* (*C-S* 14.8) 'it has been deposited'

<sup>16</sup> For change *st* > *ss*, cf. p. 73. For the assimilation involved in the form *\*ussimiḫ* instead of the expected *\*ussamiḫ*, cf. p. 79.

<sup>17</sup> *VEB*, p. 40.

<sup>18</sup> *SBA*, p. 2, § 2a.

<sup>19</sup> *VAG*, p. 6.

<sup>20</sup> Cf. note 18 for the irregularity of the Amarna Letters in this respect.

<sup>21</sup> Cf. note 19 for irregularity of Assyrian Law-book in this respect.

*a-pi-il* (*C-S* 12. 9) 'he is paid off'  
*tu-še-be-el-šu-nu-ti* (*H* 105. 10) 'you shall bring them'  
*i-ri-iq-qu* (*H* 105. 18) 'they have gone far away'  
*uš-te-pi-il-lu* (*G* 21. 4) 'they exchanged'  
*i-ri-it-tu-ú* (*N* 79. 11) 'they shall drive in'  
*ú-še-el-mu-ú* (*N* 96. 25) 'they measured off'.

These examples are merely used as illustrations. To appreciate, however, the consistency in use of the correct sign to express these vowels, an examination of the verb lists is necessary.<sup>22</sup> Nevertheless there are exceptions. These exceptions are instructive in that they are indicative of at least two factors which tended to cause the interchange of the *e* and *i*-vowels in dialects of Late Akkadian. Examples of this exceptional use are as follows:

*i-te-ir-šu* (*H* 43. 8) 'they demanded'  
*i-še-im-me* (*H* 7. 23) 'he will hear'  
*ú-še-iš-ši* (*H* 40. 14) 'I shall free myself'  
*ú-ḫe-im-mi-iš* (*H* 47. 27) 'he has stolen'  
*uḫ-te-im-mi-is* (*H* 47. 7) 'he has stolen'  
*i-ḫe-ip-pi* (*H* 73. 25) 'he shall break'  
*i-te-ip-šu* (*H* 48. 32) 'they made'.

It becomes apparent upon examining these examples that they have a common reason for having the *e*-vowel followed by a syllable beginning with an *i*-vowel. For in ordinary Akkadian script, signs for the syllables *er*, *em*, *ep*, or *es* were not in common use. This, then, is one of the causes of the gradual loss of distinction between the *e* and *i*-vowels in writing. The other possible reason for the interchange of the two vowels is less certain. Only two examples of its effect are found in these tablets, thus:

*it-ta-di-en* (*N* 6. 6; 89. 7) 'he gave' for \**it-ta-di-in*. The use of *en* for *in* may be due to the fact that the former is a shorter sign and easier to write.<sup>23</sup>

Neither of these reasons can, however, be adduced to explain the following four examples:

1. *i-ti-pu-uš* (*N* 8. 9) 'he made' for the usual *itepuš*
2. *il-te-i-(ma)* (*H* 45. 6) 'he prevailed' for the expected *il-te-e-(ma)*
3. *li-e-qi* 'was taken' for the usual *liqi* (*H* 89. 40)
4. (*a-na*) *li-qi-e* (*H* 29. 15) 'to take'.

These four exceptional writings found among hundreds of verbs employed, show that already laxity in keeping the distinctions between the *i* and *e*-vowels was setting in.

<sup>22</sup> Pp. 85-119.

<sup>23</sup> *VAB V*, Einleitung, pp. xxv ff.

## 3. CONSONANTS

While comparative orderliness is observable in the writing of the vowels, the opposite is true of the treatment of the consonants. The old Babylonian contracts and even the Hammurabi Code show frequent interchanges of the emphatic and the non-emphatic letters. But these irregularities are not quite as common as in the Kirkuk tablets. The Tušratta letters of the Amarna collection already give ample warning of this continual interchange of consonants.<sup>24</sup> In the following list are given examples of the varying uses of these consonants:

*Palatals*

<i>gi</i> for <i>qi</i>	<i>i-qi-ri-ib</i> (H 8. 16) 'he will approach' <sup>147</sup> <i>il-te-qi</i> (H 37. 9) 'he took' <sup>25</sup>
<i>gu</i> for <i>ku</i>	<i>i-il-la-ku<sub>s</sub></i> (CS 18. 20) 'they shall go' <i>u-za-ak-ku<sub>s</sub>-(ma)</i> (N 19. 9) 'they shall clear'
<i>gal</i> for <i>kal</i>	<i>i-ik-kál</i> (H 26. 15) 'he shall use'
<i>gab</i> for <i>qab</i>	<i>i-qáb-bi</i> (H 6. 18) 'he will speak'
<i>ku</i> for <i>gu</i>	<i>it-ta-am-gu<sub>s</sub>-ru</i> (H 99. 4) 'they agreed'
<i>ki</i> for <i>qi</i>	<i>i-qi-ri-ib</i> (N 89. 12) 'he shall approach' <sup>147</sup> <i>qi-bi-(ma)</i> (H 104. 5) 'speak'
<i>qa</i> for <i>ga</i>	<i>a-da-ga<sub>s</sub>-al</i> (H 27. 19) (while) 'I was looking' <i>it-ta-am-ga<sub>s</sub>-ru</i> (G 1. 5) 'they agreed'
<i>qa</i> for <i>ka</i>	<i>i-ik-ka<sub>s</sub>-al</i> (TCL 7. 12) 'he shall have the usufruct of' <i>ib-ba-la-ka<sub>s</sub>-tù</i> (H 30. 30) 'he will break (the contract)' <i>ar-ta-ak-ka<sub>s</sub>-as</i> (G 42. 9) 'I bound'.

*Dentals*

<i>tu</i> for <i>du</i>	<i>id-dú-ra</i> (H 52. 26) 'he feared' <i>it-ta-dú-uš</i> (H 52. 30) 'they committed him'
<i>te</i> for <i>de</i>	<i>i-re-id-de<sub>s</sub></i> (G 78. 3) 'he shall go' <i>ni-de<sub>s</sub>-(mi)</i> (H 48. 17) 'we shall know'
<i>ti</i> for <i>di</i>	<i>id-di-na-aš-šu</i> (H 63. 6) 'he gave him' <i>id-di-nu</i> (H 64. 5) 'they gave'
<i>ta</i> for <i>da</i>	<i>ni-dá-ag-gal-šu-nu-ti</i> (H 47. 30) 'we saw them' <i>i-ma-dá-dú</i> (H 51. 8) 'they shall measure' <i>u-ra-ad-dú</i> (H 55. 22) 'he shall increase'

<sup>24</sup> *SAB*, p. 21.

<sup>25</sup> With only very rare exceptions, *gi* is found in these texts for the *qi* in the verb *liqū*. Cf. pp. 114-116.

<sup>26</sup> The *k* of *nakāsu* is always written with its proper sign.

<i>te</i> for <i>ṭe</i>	<i>ša-ṭe<sub>4</sub>-ir</i> ( <i>II</i> 59. 26) 'was written'
<i>ti</i> for <i>ṭi</i>	<i>ša<sub>7</sub>-ṭi-ir</i> ( <i>II</i> 2. 26) 'was written'
<i>tu</i> for <i>ṭu</i>	<i>bal-ṭu</i> ( <i>CT</i> II 21. 8) 'he is alive'
<i>ta</i> for <i>ṭa</i>	<i>i-(ša)-aṭ-ṭá-ar</i> ( <i>II</i> 43. 17) 'he will write'
<i>du</i> for <i>ṭu</i>	<i>ib-ba-la-ka<sub>4</sub>-tù</i> ( <i>II</i> 30. 30) 'he will break' (the contract) <i>i-ri-it-tù-ú</i> ( <i>N</i> 79. 11) 'they shall drive in'
<i>da</i> for <i>ta</i>	<i>um-tá-ša-ar-(mi)</i> ( <i>II</i> 68. 38) 'he marked'
<i>dag</i> for <i>taq</i>	<i>ab-ta-táq</i> <sup>27</sup> ( <i>G</i> 33. 8) 'I cut off'
<i>du</i> for <i>ṭu</i>	<i>bal-ṭu</i> ( <i>H</i> 57. 6) 'he is alive'.

## Labials

<i>pa</i> for <i>ba</i>	<i>ba-aq-nu</i> ( <i>H</i> 38. 3) 'shorn'
	<i>i-bá-aq-qí-in</i> ( <i>H</i> 9. 14) <sup>28</sup>
	<i>i-ba-as-ši</i> ( <i>H</i> 7. 11) 'they will be'. <sup>145</sup>

As for the remaining labials little can be learned from the orthography with regard to their actual pronunciation, since the sign *bu* also has the value *pu*, while the signs *ab*, *ib* and *ub* also have the values *ap*, *ip* and *up*. The sign for *bi* in complete agreement with the Old Babylonian <sup>29</sup> is read as *pi*; the *pi* sign of the classical Assyrian being used for the semi-vowel *μ* + vowel.<sup>30</sup>

## Sibilants

<i>zi</i> for <i>si</i>	( <i>ana</i> ) <i>na-ka-sí</i> ( <i>II</i> 47. 14) 'for cutting'
	<i>us-sí-im-mi-hu-un-ni-(ma)</i> ( <i>G</i> 29. 10) 'they made me joint heir'
<i>zi</i> for <i>ši</i>	<i>uš-te-sí-(ma)</i> ( <i>II</i> 53. 24) 'I made go out'
<i>zu</i> for <i>šu</i>	<i>ú-us-sú-ú</i> ( <i>G</i> 12. 13) 'they came forth'
<i>su</i> for <i>ša</i>	<i>ša<sub>7</sub>-ṭi-ir</i> ( <i>H</i> 60. 23) 'was written'
	<i>i-ša<sub>7</sub>-ka<sub>4</sub>-an</i> ( <i>II</i> 95. 20) 'he will deposit'
	<i>i-ša<sub>7</sub>-as-si</i> ( <i>N</i> 99. 17) 'he will claim'
<i>si</i> for <i>ši</i>	<i>i-ši-im-ma-un-ni</i> ( <i>CS</i> 16. 47) 'he settled upon me'
<i>zu</i> for <i>su</i>	

The texts use the *zu* sign only; for the same reason, no doubt, as in the Amarna Letters,<sup>31</sup> viz., their similarity in the cuneiform script.

<sup>27</sup> Cf. note 172.

<sup>28</sup> Cf. note 144.

<sup>29</sup> TAB V, Einleitung, p. xxxvi.

<sup>30</sup> Gadd reads *pi*, cf. 5. 50; 9. 13; 51. 6. That this is incorrect is pointed out conclusively by Koschaker, NKRA, p. 14 ff., note a.

<sup>31</sup> SAB, p. 22 ff.

*The Laryngals*

The sign for the "spiritus lenis" seems to be practically unknown. Only one example of its use is found among the verbs of these tablets: *il-te-'e-(ma)* (*H* 17.16) 'he will prevail'. In all other cases of  $\aleph_{1-2-3-4-5}$ , the laryngal is not expressed; thus:

- ( $\aleph_1$ ) (*ana*) *a-ka<sub>4</sub>-li* (*G* 58.7) 'for eating'  
 (𐎶) *it-ta-na-a-lu* (*H* 80.32) 'she has lain with'  
 (𐎶<sub>1</sub>) *ni-de<sub>4</sub>-(mi)* (*H* 48.17) 'we shall know'  
 (𐎶<sub>2</sub>) *ú-ba-a-aš* (*N* 8.12) 'he shall seek him'  
 (𐎶) *i-ri-ig-qú* (*H* 105.18) 'they went far away'.

Indeed the verb (𐎶𐎶𐎵) *la'u* 'to overcome' occurs frequently in these texts and always with the guttural not indicated.<sup>32</sup> Since the period of the Hammurabi dynasty this sign is only seldom encountered,<sup>33</sup> but is found in frequent use in the Amarna Letters and in the Assyrian Law-book,<sup>34</sup> its differentiation and evolution from the  $\underline{a}/\underline{u}$  *h* sign<sup>35</sup> must have taken place between the end of the first dynasty of Babylon and the beginning of the Amarna period.

To sum up then, the following consonants are frequently interchanged:

Palatals:	<i>gi</i> for <i>ki</i>	Dentals:	<i>tu</i> for <i>tu</i>
	<i>gu</i> " <i>ku</i>		<i>ta</i> " <i>ta</i>
	<i>gal</i> " <i>kul</i>		<i>du</i> " <i>tu</i>
	<i>gab</i> " <i>qab</i>		<i>da</i> " <i>ta</i>
	<i>ku</i> " <i>gu</i>		<i>dag</i> " <i>taq</i>
	<i>ki</i> " <i>gi</i>		<i>du</i> " <i>tu</i>
	<i>qa</i> " <i>ga</i>	Sibilants:	<i>sa</i> for <i>ša</i>
	<i>qa</i> " <i>ka</i>		<i>si</i> " <i>ši</i>
Dentals:	<i>tu</i> for <i>du</i>		<i>zi</i> " <i>si</i>
	<i>te</i> " <i>de</i>		<i>zi</i> " <i>ši</i>
	<i>ti</i> " <i>di</i>		<i>zu</i> " <i>šu</i>
	<i>ta</i> " <i>da</i>		<i>zu</i> " <i>su</i>
	<i>te</i> " <i>te</i>	Labials:	<i>pa</i> for <i>ba</i> <sup>36</sup>
	<i>ti</i> " <i>ti</i>		

<sup>32</sup> Cf. p. 119, for examples.

<sup>33</sup> Schorr (*VAB* VI, Introduction xxvi) states: "Ein eigenes Zeichen für der Kehlkopfverschlusslaut ('a, 'i, 'u) fehlt noch; es wird entweder gar nicht, oder durch das Zeichen *ah* niedergegeben". Cf. however Barton *BW*, p. 92, for examples of the use of the spiritus lenis during the reign of the First Dynasty of Babylon.

<sup>34</sup> *VAB* V, p. 7.

<sup>35</sup> *AG*, p. 62.

<sup>36</sup> For possible other interchanges among the labials, cf. p. 69.

What conclusion may be derived from the interchange of consonants illustrated by these tablets? Very much the same as the one which Böhl<sup>37</sup> notes after having examined the orthography of the Amarna Letters: that this marked failure to differentiate between voiced and voiceless sounds was characteristic of certain ethnic groups of western Asia towards the middle of the second millennium B. C. For it was in the Tušratta letters and in those sent by the princes from the Hittite lands that this same linguistic phenomenon occurs.

Most interesting are the writings of *sa* for *ša* and *si* for *ši*. All the grammarians, as for instance, Delitzsch,<sup>38</sup> Ungnad,<sup>39</sup> Ylvisaker<sup>40</sup> agree that one of the most important distinctions between the Babylonian and Assyrian dialects, is the preference of the latter for *s* where the former retains the *š*-sound. As Delitzsch<sup>41</sup> pointed out, the names of the months borrowed by the Hebrews during the Babylonian Exile show the *š* pronunciation, e. g., תִּשְׁרֵת = Tišrītu, שַׁבָּת = Šabaṭu. In Assyrian, on the other hand, the *š* had become *s*; as can be proved by the Assyrian transcription of Hebrew names, thus: שְׁמֶרֶן = Sa-me-ri-na; אֲשֻׁדּוּר = Asdudu.

Even more significant is the fact that the *s*-sound is represented in foreign transcriptions of such Assyrian names as contain *š* in the historical orthography of these names; thus: Šarrukīn = סַרְרֻקִּין, Tukulti-apil-ešara = תִּקְלִי-אֶפֶל-עֶשָׂר.

This difference in the pronunciation between the two Akkadian dialects is therefore amply attested. The question arises, When did this division begin? That it did not always exist is shown by the Amarna Letters. Of these Böhl says:<sup>41a</sup> "Von der Assyrischen Vorliebe für *s* statt *š* findet sich in Amarna keine Spur." And yet in his study of the Assyrian Law-book, Lewy<sup>42</sup> finds: "der Übergang *š* > *s* wenigstens am unbetonten Wortende so weit durchgeführt ist dass die Grenzen der historischen Orthographie gelegentlich durchbrochen war."

What caused this divergent treatment of the *š* by the Babylonians as *š* and by the Assyrians as *s*? This change is observable as early as the Assyrian Law-book though it is by no means as common as in the Late Assyrian. Perhaps the explanation is to be found in the change of *š* > *s* as illustrated

<sup>37</sup> *SAB*, p. 21.

<sup>38</sup> *AG*, p. 122.

<sup>39</sup> *UBAG*, p. 13, 14.

<sup>40</sup> *BAG*, p. 8.

<sup>41</sup> *AG*, p. 122 ff.

<sup>41a</sup> *SAB*.

<sup>42</sup> *VAG*, p. 17.

in the Kirkuk tablets.<sup>43</sup> That these examples are nevertheless rare, may be due to the fact that the scribes, who were for the most part under Babylonian influence,<sup>44</sup> were in the habit of using the historical writing. The strength of the Babylonian influence in the Kirkuk region is amply attested by nearly every grammatical detail in these tablets. And also in Assyria—whether one agrees with the scholars<sup>45</sup> who argue that the Assyrian Semites were a Babylonian offshoot,—or whether one follows Smith<sup>46</sup> in favoring a western homeland, that southern influence must have persisted after the period of the First Babylonian Dynasty. Even as late as the Amarna period a Babylonian king is still contemptuous of his northern rival.<sup>47</sup>

No doubt even in the district of Assyria as well as in Arrapha, there must have existed scribes who in matters of orthography followed Babylonian usage. Only sporadically would a native scribe dare oppose the historical tradition. Then would the preference of the Hurrians for the *s* come to the fore.<sup>48</sup> When Assyria had grown strong and independent in the days of Ašur-uballit (1380-41) and the centuries following, it proceeded to emancipate itself also from the cultural influence of Babylonia. This, of course, was not without the effects upon writing as well.

And so, to sum up: the Assyrians developed their preference for the *s* from the neighboring Hurrians, though with neither people did the writing become prevalent until Babylonian influence could be brushed aside.

## II. PHONETIC CHANGES IN VERBAL FORMS

### 4. CONSONANTAL PHONETIC CHANGES

#### *Laryngals*

A full discussion of the various changes in the verb forms induced by the laryngals will be given in the treatment of the "Verba Primae Laryngalis".<sup>49</sup>

#### *Dentals and Sibilants*

*št* > *lt* *al-ta-par-(mi)* (*H* 41. 4) 'I sent' from *šapāru*  
*il-ta-sí* (*CS* 16. 9) 'he claimed' from *šusū*

<sup>43</sup> Cf. p. 64 for examples of *š* written as *s*.

<sup>44</sup> Kosechaker, *NKRA*, p. 13 and notes 2 and 3.

<sup>45</sup> *EHA*, p. 376, note 2 for literature.

<sup>46</sup> *EHA*, pp. 102-114.

<sup>47</sup> Cf. *VAB* II, p. 90, ll. 31-35.

<sup>48</sup> For the pronunciation of *š* as *s* in the Hurrian language, cf. Bork, *Mittani*, *JRAS* 1928, p. 52 ff.; Sköld, *ibid.*, 1926, p. 667-678; Friedrich, *Indogermanisches Jahrbuch*, 1928, p. 321.

<sup>49</sup> Cf. pp. 79-82.

*ul-te-bi-ir-šu* (CS 15.9) 'he carried her off' for \**uš-te-bi-ir-šu*  
*ul-te-lī* (H 58.9) 'he forfeited'<sup>50</sup>  
*ul-te-ši-i-mu* (H 49.26) 'he announced'.

This change is in these texts by no means a consistent one. By the side of *ul-te-ri-bu* (CS 20.3) 'they caused to enter' is found also *uš-te-ri-ib* (H 40.10) 'I made enter'. Alongside of *ul-ta-par-(mi)* (H 41.21) 'I sent' occurs also the form *aš-ta-par-šu-(mi)* (CS 16.27) 'I sent him'. In the Assyrian Law-book, however, this phonetic interchange *št* > *lt* occurs without exception.<sup>50</sup>

However, this change represents an important difference between the Late Assyrian and Neo-Babylonian. For in Late Assyrian the *š* was pronounced *s*.<sup>51</sup> Therefore *št* did not change to *lt*. Instead, the following changes took place: *št* > *st* > *ss*.<sup>52</sup>

Between Middle Assyrian and contemporary Babylonian<sup>53</sup> no such distinction exists. Indeed, in the Amarna Letters, it is the Assyrian and the Mitanni documents which are as pronounced in displaying the change of *št* to *lt* as the Babylonian.<sup>54</sup> The fact that the Kirkuk texts also contain this change cannot therefore be used as a proof of its connection with one or the other Akkadian dialect. It is to be noted, however, that though these texts already show instances of *š* becoming *s* in the orthography, the development *št* > *st* > *ss* cannot be established.<sup>55</sup> Two explanations suggest themselves in this connection: Either 1) the *št* and *lt* writings are historical and the consonants were actually pronounced *ss*, or 2) *š* developed into a sound that was intermediate between the lingual sibilant and the plain *š*. However, it is at present premature to come to a definite conclusion on the subject.<sup>55a</sup>

*st* > *ss* *us-si-im-mi-ḫu-un-ni-(ma)* (G 29.10) 'they made me joint heir'  
 for \**us-ti-im-mi-ḫu-un-ni-(ma)*  
*st* > *ss* *iš-ša-bat-sú-nu-ti* (H 47.11) 'he seized them'  
 for \**iš-ta-bal-šu-nu-ti*  
*zt* > *zz* *iz-za-ak-ra-an-ni-(ma)* (CS 16.10) 'he pronounced against me'  
 for \**iz-ta-ak-ra-an-ni-(ma)*

<sup>50</sup> VAG, p. 17.

<sup>51</sup> Cf. pp. 71 f.

<sup>52</sup> For change *st* > *ss*, see elsewhere on this page.

<sup>53</sup> B.Gr., § 67d; AG, p. 126 ff., both assume a direct change *št* > *ss*; omitting the intervening step *st* > *st*. Cf. BAG, p. 10 and note 2.

<sup>54</sup> Lewy, VAG, p. 18 ff.; SAB, p. 10.

<sup>55</sup> This is true also of the Assyrian Law-book where the *š* is much more often represented by *s* in the orthography. Cf. Lewy, VAG, p. 17, 20.

<sup>55a</sup> Cf. BLHS, p. 166 o, for Hebrew parallel.

*Effects of Sibilants on Sibilants*

- šš > ss *ir-ta-pí-is-su* (*H* 52. 29) 'he struck him'  
for \**ir-ta-pí-is-šu*
- šš > ss *i-pu-us-sú* (*N* 4. 3) 'he made him'  
for \**i-pu-uš-šu*
- šš > šš > s *i-pu-sú* (*H* 6. 1) 'he made him' for \**i-pu-uš-šu*  
*i-pu-sí* (*N* 82. 2) 'he made her' for \**i-pu-uš-ši*
- zš > zz *ú-ša-aḥ-az-zu* (*H* 57. 5) 'he shall make him marry'  
for \**ú-ša-aḥ-az-šu*

In all these examples of the interrelationship of the sibilants upon sibilants, the outstanding fact is their marked tendency towards progressive total assimilation.<sup>56</sup> Thus šš changes to ss; zš to zz. But most peculiar is the change of šš to ss. To what factors should this change be ascribed, inasmuch as the two sounds are not dissimilar? The same change occurs in the Assyrian Law-book; cf. *e-pu-us-si*.<sup>57</sup> This, however, is to be expected, for there the š was already written *s* in many cases.<sup>58</sup> Therefore we find reflected in this case merely an orthographic readjustment and no change in actual sound. Perhaps the Kirkuk orthography is due to similar reasons.

*Nasals*

## (a) Partial Assimilation.

- mt > nt *un-te-eš-ši-ir-(ma)* (*H* 29. 5) 'I released'  
for and alongside of *um-te-eš-ši-ir-(ma)*

## (b) Total Assimilation.

- bm > mm *e-ir-ru-um-(mi)* (*S* 15) 'he shall encroach'  
for \**e-ir-ru-ub-(mi)*
- nd > dd *id-di-in* (*G* 11. 6) 'he gave' alongside of *in-dì-in* (*H* 90. 7)  
*id-dì-nu* (*H* 64. 5) 'they gave' alongside of *in-dì-nu* (*N* 15. 8)
- nd > dd > d *i-din* (*H* 84. 7) 'he gave' for \**indin*
- nt > tt *it-ta-ši-iš* (*H* 47. 35) 'he made him take oath'  
for \**in-ta-ši-iš*
- nk > kk *ik-ki-is-sú* (*H* 39. 10) 'he cut it off' for \**in-ki-is-sú*
- nš > šš *it-ta-dì-iš-šu* (*II* 35. 6) 'he gave him'  
for \**it-ta-dì-in-šu*
- nm > mm > m *li-id-dì-(ma)* (*II* 106. 14) 'let him give' for \**li-id-din-(ma)*

<sup>56</sup> *B.Gr.*, § 57.<sup>57</sup> Lewy, *VAG*, p. 81.<sup>58</sup> Cf. Lewy, *VAG*.

Dissolution of gemination through nasal dissimilation is found in the following cases:

*i-ma-an-gur* (H 29. 15) 'he will be willing' for \**i-ma-ag-gur*

*i-na-an-din* (H 69. 11)<sup>59</sup> 'he will give' for \**i-na-aḏ-din*

*in-di-in* (H 90. 7) 'he gave' for \**iḏ-din*<sup>59</sup>

## 5. COMPLETE LOSS OF CONSONANTS

This takes place at times in the I<sub>1</sub> present and I<sub>2</sub> preterite of *nadānu*, where the final *n* of the root is lost.

*i-na-an-di* (H 92. 4, 7)<sup>59a</sup> 'he will give' for the usual *i-na-an-din*

*it-lu-di-iš* (H 47. 17) 'he gave it' <sup>60</sup> for \**ittadin-š(u)*

## 6. VOWEL CHANGES

The Kirkuk dialect—i. e., Middle Babylonian—, and Middle Assyrian, vary widely in regards to vowel changes. The facts are as follows:

(a) A closed *a*-vowel, when opened by the addition of a following *u*-afformative, almost always changes to *u*. Thus the plural of *i-ša-ak-an* becomes *i-ša-ak-ku-nu*; the plural of *ú-pal-lu-aš* becomes *ú-pal-lu-u-šu*, etc.<sup>61</sup> This vowel change, which seems to be due to a regressive vowel assimilation, never occurs in the Kirkuk texts examined.

(b) In the I<sub>2</sub> forms, the Middle Assyrian has the forms *taqtibi*, *taltiriq*, *tattidin* for the expected *taqtabi*, *tallariq*, *tattadin*.<sup>62</sup> This change also seems to be due to regressive assimilation. In the Kirkuk texts it does not occur.

A common characteristic of the vowel changes discussed in the above two paragraphs is this: the vowel undergoing the change *is* or *has become* open.<sup>63</sup>

### *Middle Babylonian*

(a) In the second syllable of the present I<sub>1</sub> forms the *a* often becomes *i*, thus:

<sup>59</sup> Cf. Bauer-Leander, *KBAḠ*, p. 3 ff., for the same phenomenon in Aramaic.

<sup>59a</sup> For parallel case in Arabic cf. Socin, *Ar. G.*, p. 45, note 1.

<sup>60</sup> Perhaps also *ni-iḏ-di* (H 27. 5). But an erasure in the text makes this passage uncertain.

<sup>61</sup> See Lewy, *FAG*, p. 26, for additional examples in the Assyrian Law-book. Cf. also *i-ma-du-du* 'they shall measure' *KAJ*, 12. 18; *i-pá-tu-ru* 'they shall redeem' *KAJ*, 13. 27; *iḏ-du-nu* 'they shall give' *KAJ*, 47. 22.

<sup>62</sup> Cf. Lewy, *FAG*, p. 29, for additional examples.

<sup>63</sup> Cf. Lewy, *FAG*, p. 27. Cf. also *KAJ*, 88. 16.

- 1) Alongside of *i-qar-ri-ib-šu* we find *i-qì-ri-ib*,<sup>64</sup>
- 2) *i-qib-be-ir*<sup>65</sup> is the form used in these tablets instead of the expected *ikašid* present.
- 3) *i-ši-si* alongside of the usual<sup>64</sup> *i-ša-si*; and once also the form *i-ša-is-si*, perhaps the intermediate stage between the first two forms.
- 4) *te-zi-ri-ib*<sup>66</sup> for the expected<sup>64</sup> *\*ta-za-ri-ib*.

This change does not occur in Middle Assyrian as represented by the Assyrian Law-book and the texts published in the *KAJ*.

(b) In the preterite II<sub>2</sub> of the regular verbs, the *a*-vowel of the second syllable changes to *i*, thus:

- 1) *uq-te-bi-ir-šu* instead<sup>64</sup> of the regular *\*uq-tab-bi-ir-šu*
- 2) *uk-te-ši-du-(ma)* instead<sup>64</sup> of the regular *\*uk-taš-ši-du-(ma)*
- 3) *um-te-eš-ši-ir-(mi)* alongside of *um-taš-ši-ir-(mi)*

In these illustrations, the *a*-vowel in a closed syllable changes to *e* under the influence of the following *i*-vowel.<sup>67</sup> In the Assyrian Law-book, however, where vowel assimilation occurs only in an open syllable, the few forms found follow the regular *uktaššid* pattern.<sup>68</sup>

## 7. INFLUENCE OF CONSONANTS ON VOWELS

The *i*-vowel changes at times to *e* under the influence of a following *r*,<sup>69</sup> thus:

(a) *i-qib-be-ir* (*G* 9. 16) 'he shall bury' instead of *\*i-qib-bi-ir* and alongside of *uq-te-bi-ir-šu*

(b) *ul-te-ir* (*II* 27. 15) 'he returned' for the expected *ul-lir*.

<sup>64</sup> For loss of gemination in the writing, cf. p. 65. Cf. examples 2 and 3 above where the gemination is written.

<sup>65</sup> For writing cf. p. 68 ff. For the *e*-vowel in the last syllable instead of the customary *i*-vowel, cf. below.

<sup>66</sup> For the *e*-vowel of the first syllable, cf. note 146. Cf. also *G*, p. 106, note to l. 6.

<sup>67</sup> Ungnad, *UBAG*, p. 8, § 5ab. Delitzsch, *AG* explains it as an umlaut of accented *ā* to *ē* because of following *i* or *ē*.

Lewy, *VAG*, p. 29, note 2, explains the change by analogy with the primae *§ 4-5* where the *a* > *e* umlaut is due to the quiescent hard laryngal.

<sup>68</sup> The permansive and infinitive of the II<sub>1</sub> and III<sub>1</sub> stems, give further conclusive proof of this difference in vowel assimilation between the Assyrian and the Babylonian. In II<sub>1</sub>, the permansive and the infinitive are *ballut* for the Assyrian, but *bullut* for the Babylonian (cf. Ungnad, *UBAG*, § 35 f, g.). In III<sub>1</sub> the permansive and the infinitive are *šaknuš* for the Assyrian, but *šuknuš* for the Babylonian (cf. Ungnad, *UBAG*, § 36 f, g.).

<sup>69</sup> Delitzsch, *AG*, p. 96.

For influence of laryngals on vowels, see treatment of verba primae laryngalis.<sup>70</sup>

### 8. INFLECTION

In common with the Old Babylonian, the third person masc. singular and plural is used also for the third person feminine in the present and preterite. The only exception is *tu-at-lu-lu-ak* (II 49. 6) 'she went'. In line 4, of the same tablet, however, the form is *it-lu-si-(ma)*, although the subject is the same feminine noun. For all other persons, the regular Akkadian prefixes and suffixes are used. There are, however, occasional errors due to carelessness in the use of a third person for a first and *vice versa*. Cf. notes 157, 194, 205.

### 9. STEMS

While these tablets differ in no way from the usual Akkadian in their stem formation, the important fact must be noted that there is not a single instance where the middle stem with the *l*-element shows either reflexive or passive meaning. This is true not only of the  $I_2$  class where even for Late Akkadian, Ungnad<sup>71</sup> and Delitzsch<sup>72</sup> both admit difficulty in finding any difference between  $I_1$  and  $I_2$ , but also of the derived conjugations. The same holds true of Assyrian in the Law-book: "Die *l*-stämme werden noch gar nicht passivisch gebraucht und wechseln ohne wesentliche Bedeutungsunterschied gern mit ihren activen Stämmen."<sup>73</sup>

The use of these middle stems with a reflexive and passive meaning, therefore, seems to be a later development. Why did these forms come into use, if their meaning is the same as that of the simple stems? Perhaps there is a clue to the answer in this peculiar fact: the use of the *l*-stems is much more widespread in the preterite than in the present. The verbs *epēšu*, *nadānu* and *liqū* whose  $I_2$  preterite forms are so very numerous in these tablets, do not have a single case of the  $I_2$  present. Of the regular verbs, while the preterite forms of  $I_2$  are quite numerous,<sup>74</sup> there is only one example of a present  $I_2$ .<sup>75</sup> Of the forms of the regular verbs, there is also only one<sup>76</sup> instance of a present, while the  $II_2$  preterite is well represented.<sup>77</sup> Of the irregular verbs there are not sufficient examples to allow certain statistical deductions, except the verbs *epēšu*<sup>78</sup> and *liqū*<sup>79</sup> already mentioned, which

<sup>70</sup> *Ibid.*, pp. 44-51.

<sup>71</sup> *UBAG*, p. 51, § 38a.

<sup>72</sup> *AG*, p. 238.

<sup>73</sup> *VAG*, p. 67.

<sup>74</sup> Cf. pp. 90-91.

<sup>75</sup> Cf. p. 90.

<sup>76</sup> Cf. p. 92.

<sup>77</sup> Cf. pp. 92 f.

<sup>78</sup> Cf. pp. 104-106.

<sup>79</sup> Cf. p. 114-116.

reveal the interesting fact that the  $I_2$  preterite forms are abundant, while the others are totally absent.

The conclusion to be drawn, then, seems to be the following: In an early period in the history of the Akkadian, the *t*-element began to lose its reflexive significance. Forms such as *ikšud* and *iktašud* for the preterite; *ikašud* and *iktašud* for the present could be used interchangeably. Because the preterite *ikšud* lacks bulk, when compared with the present *ikašud* the use of the *t*-stem to express it became frequent. On further analogy with the present, the *iktašud* form rather than the *iktašud* form prevailed.<sup>81</sup>

If the above hypothesis is correct, we have a ready answer for the following problems: (1) the use of the *t*-stems and the simple stems without any distinction in the meaning in our period; (2) the prevalence of the *t*-stems in the preterite and their comparative rarity in the present; (3) the frequent use of the *iktašud* forms of the  $I_2$  rather than of the *iktašud* forms.<sup>82</sup>

#### 10. VERBA FIRMA

The principal facts concerning these verbs have already been discussed in connection with orthography and phonetic changes. As the present of the verb *baqānu* the Law-book has *i-bu-aq-qa-an*, while the text (*H* 9. 14) reads *i-ba-aq-qi-in*. But since the occurrence is isolated, no conclusion can be drawn for a dialectal difference.<sup>84</sup>

#### 11. VERBA PRIMAE *n*

The primae *n* verbs are listed as part of the regular verbs. They show no peculiarities, excepting the assimilation of the *n* to the consonant immediately following in the preterite.<sup>85</sup> The verb *nadānu*, however, because of its frequency and numerous orthographic variants is listed separately.<sup>86</sup> This shows a marked divergence in form between the Assyrian and Babylonian dialects of the Akkadian. For it is only in the preterite  $I_1$  that these two

<sup>80</sup> This would also explain the prevalence of the *iktašud* forms for the preterite  $I_2$ , even where the preterite  $I_1$  of the same verb is *ikšud* (cf. Delitzsch, *AG*, p. 248, § 121a), and would do away with the necessity of assuming an "ursprüngliche Form *išpar*," *ibid.* This is especially true of the irregular verbs.

<sup>81</sup> Cf. pret. *indin* with present *inadin*, pret. *ilqi* with present *ilagi*.

<sup>82</sup> For a fourth problem which this theory answers cf. pp. 81-82.

<sup>83</sup> Cf. pp. 85-93.

<sup>84</sup> For the *kuššud* form of the permansive and infinitive  $II_1$  (cf. p. 92), see note 68.

<sup>85</sup> Cf. p. 74.

<sup>86</sup> Cf. pp. 93-97.

dialects show the same form: *idin*.<sup>87</sup> In the present I<sub>1</sub> the Law-book has *iddan*,<sup>88</sup> while our tablets read both *i-na-din*,<sup>89</sup> and *inandin*<sup>90</sup> with nasal dissimilation.<sup>91</sup> Neither in the Law-book nor in the Kirkuk tablets is the present I<sub>2</sub> found. For the preterite I<sub>2</sub> the Law-book has *ittidin*<sup>92</sup> while the tablets have *ittadin*.<sup>93</sup>

## 12. PRIMAE LARYNGALIS

The influence of a quiescent laryngal on the preceding vowel forms the basis of an interesting and outstanding distinction between the Assyrian and Babylonian dialects. The facts are as follows:

- 1) Third person primae  $\aleph_1$  verbs (a) Assyrian: *eh-ha-az*<sup>94</sup>  
(b) Kirkuk: *i-ih-ha-az* (*G* 12.8)
- 2) Third person primae  $\aleph_2$  verbs (a) Assyrian: *il-lak*<sup>95</sup>  
(b) Kirkuk: *i-il-la-ak* (*II* 50.12)
- 3) Third person primae  $\aleph_3$  verbs (a) Assyrian: *e-ru-uš*<sup>96</sup>  
(b) Kirkuk: *i-ir-ri-iš* (*G* 15.26)
- 4) Third person primae  $\aleph_4$  verbs (a) Assyrian: *e-pa-aš*<sup>97</sup>  
(b) Kirkuk:  $\begin{cases} i-pu-uš & (\text{II } 61.9) \\ e-ip-pu-uš & (\text{G } 51.9) \end{cases}$
- 5) Third person primae  $\aleph_5$  verbs (a) Assyrian: *e-ru-ub*<sup>98</sup>  
(b) Kirkuk: *e-ir-ru-um-(mi)*<sup>99</sup> (*G* 15.18)

The conclusion at first glance would seem to be:

- 1)  $*ia > i^{100} + \aleph_1$   $\begin{cases} e \text{ in Assyrian} \\ i \text{ in Kirkuk} \end{cases}$
- 2)  $*ia > i + \aleph_2$   $\begin{cases} i \text{ in Assyrian} \\ i \text{ in Kirkuk} \end{cases}$
- 3)  $*ia > i + \aleph_3$   $\begin{cases} e \text{ in Assyrian} \\ i \text{ in Kirkuk} \end{cases}$
- 4)  $*ia > i + \aleph_4$   $\begin{cases} e \text{ in Assyrian} \\ e \text{ or } i \text{ in Kirkuk} \end{cases}$
- 5)  $*ia > i + \aleph_5$   $\begin{cases} e \text{ in Assyrian} \\ e \text{ (or } i) \text{ in Kirkuk} \end{cases}$

<sup>87</sup> For Assyrian Law-book, cf. Lewy, *VAG*, p. 76. For tablets cf. here p. 94.

<sup>88</sup> Lewy, *VAG*, p. 76.

<sup>89</sup> P. 93.

<sup>90</sup> P. 93.

<sup>91</sup> Cf. p. 75.

<sup>92</sup> Lewy, *VAG*, p. 77.

<sup>93</sup> P. 96.

<sup>94</sup> Lewy, *VAG*, p. 79 ff.

<sup>95</sup> Lewy, *VAG*, p. 80.

<sup>96</sup> Lewy, *VAG*, p. 81. The form is preterite.

<sup>97</sup> Lewy, *VAG*, p. 80.

<sup>98</sup> Lewy, *VAG*, p. 81. The form is preterite.

<sup>99</sup> For *\*e-ir-ru-ub-(mi)* cf. p. 74.

<sup>100</sup> For change *ia* to *i* cf. Ungnad, *UBAG*, etc.

In the Assyrian, however, the Law-book shows that the seeming agreement of the influence exerted by the quiescent  $\aleph_{3-4-5}$  on the *i*-vowel with that of the quiescent  $\aleph_1$  (*viz.*, that they all change to *e*) does not hold when the verbs *tertia* infirmae are taken into consideration. It is only with quiescent  $\aleph_{2-5}$  that the *i*-vowel becomes *e*. The conclusion for the Assyrian therefore is the following: that the change  $i + \aleph_1 > e$  of the third person primae  $\aleph_1$  is not primary but on the analogy of the primae  $\aleph_{3-4-5}$  verbs.<sup>101</sup>

Reasoning along similar lines,<sup>102</sup> the difficulty caused by the presence of *epuš* and *ipuš* forms side by side may be explained by the fact that originally the changes were the same for Kirkuk (*i. e.*, Middle Babylonian) as for Assyrian, thus:  $i + \aleph_1 > i$  but  $i + \aleph_{4-5} > e$ . In this dialect, however, for some unknown reason, the analogy worked the other way; *e. g.*, even the  $i + \aleph_{4-5}$  became *i*.<sup>103</sup> At the time of the Kirkuk tablets, the older *e* was still in use, though far from frequent.<sup>104</sup>

For the influence of the laryngals on the *a*-vowel of the first person, the following are the facts for the Kirkuk tablets:

- $a + \aleph_1$  *a-ta-ḥa-az* (G 33. 4) 'I took' (to wife)
- $a + \aleph_2$  *a-la-ak-(mi)* (H 49. 23) 'I shall go'
- $a + \aleph_3$  no examples
- $a + \aleph_4$  *e-zi-iḥ* (H 40. 16) 'I will leave'
- $a + \aleph_5$  no examples.

For the Kirkuk dialect, therefore, the following observations concerning the influence of the laryngals on the *a*-vowel may be stated:

- $a + \aleph_{1-2} > a$
- $a + \aleph_4 > e$

In examining the  $\text{III}_1$  forms of the primae laryngalis, the following may be noted:

$\text{III}_1$  present of *aḥāzu* (primae  $\aleph_1$ ) *u-ša-aḥ-az-zu* (H 57. 5)  
'he shall make him marry'

but  $\text{III}_1$  preterite of *erēbu* (primae  $\aleph_5$ ) *ú-še-ri-iḥ-šu* (CS 8. 4)  
'he made him enter'

<sup>101</sup> Lewy, *VAG*, pp. 34-36. For discussion of the difficulties involved in Lewy's comparison of *taḥtepi* with *taqtibi* in order to prove that the *te* syllable of the former shows that originally the form was *tahtepe*, from *ḥapū* ( $\aleph_1\aleph_2\aleph_3$ ), cf. pp. 81 f.

<sup>102</sup> In these texts also, *našū*, a *tertia*  $\aleph_1$  becomes *i-na-aš-ši* (CT II, 21. 11, 14) but *iḏū*, a *tertia*  $\aleph_4$  becomes *ti-i-de* (S 23) and *šemū* also a *tertia*  $\aleph_4$  becomes *i-še-im-me* (H 7. 23).

<sup>103</sup> For similar conclusion with regard to Old Babylonian, cf. Lewy, *VAG*, p. 36, note 3.

<sup>104</sup> For example cf. p. 104.

To the postulated changes:

$$a + \aleph_{1-2} > a$$

$$a + \aleph_4 > e$$

is to be added, therefore:

$$a + \aleph_5 > e^{105}$$

Examining the  $\text{II}_1$  forms, the following facts become evident:

*i-ta-am-ru* (N 89.19) 'they saw'

*ni-ta-lu-ak-(mi)* (H 49.17) 'we went'

*i-te-zi-ib* (H 1.6) 'he left'

Here we find that while in the primae  $\aleph_{1-2}$  verbs the *t*-syllable of the  $\text{I}_2$  stem remains *ta*, which is the regular form; in the primae  $\aleph_4$  verbs, the *ta* changes regularly to *te*.<sup>106</sup>

The problem in these cases, therefore, is: What causes this change of *ta* > *te* in the  $\aleph_{4-5}$  forms? Delitzsch<sup>107</sup> merely states the change with the following comment: "Umlaut von betontem *a* in *e* bei nachfolgendem *i* oder *e*". What is to be done then, with cases in the Assyrian such as *taqtibi*,<sup>108</sup> etc.? Why is the change there *ta* > *ti* rather than *ta* > *te*?

Ungnad<sup>109</sup> offers a different explanation for this *ta* > *te* change. Starting with the suggestion that *a* +  $\aleph_{4-5}$  becomes *e* he suggests that the reason for the change of *ta* > *te* in the primae  $\aleph_{4-5}$  class is that the *a*-vowel of neighboring syllables usually also becomes *e*, e. g., *a* $\aleph_4$  *tabir* > *ētabir* > *ētebir*. The difficulty with this explanation is, that while this is true of the first person, and obtains also in the case of the Assyrian third person, where the change of *a* > *e* with  $\aleph_{4-5}$  is the rule;<sup>110</sup> what is to be said for the Babylonian third person, which according to Ungnad<sup>111</sup> shows the change of *ia* $\aleph_{4-5}$  to *i*? Surely under the influence of the resulting *i* the *a* of the neighboring syllable, if showing any change, would become *i* and not *e*.

In studying the Assyrian Law-book, moreover, Lewy has found that the  $\text{I}_2$  *ta* syllable follows regularly a regressive assimilation;<sup>112</sup> e. g., it is the

<sup>105</sup> The same is true for Middle Assyrian, cf. Lewy, *VAG*, p. 33. For possible influence on *verba firma*, cf. p. 76.

<sup>106</sup> For examples see pp. 106, 114, 116, 118, 119.

<sup>107</sup> *AG*, p. 90.

<sup>108</sup> Lewy, *VAG*, p. 93.

<sup>109</sup> *UBAG*, § 57 d.

<sup>110</sup> Lewy, *VAG*, p. 33.

<sup>111</sup> *UBAG*, § 57 e.

<sup>112</sup> Lewy, *VAG*, p. 28.

vowel following which influences it and not the preceding one: *taltiriq* for Babylonian *taltariq*, etc.<sup>113</sup> It is more reasonable, therefore, to assume that the change of *ta* to *te* in the Law-book is also due to regressive assimilation. This is further proved by the fact that this change of *ta* > *te* occurs only in verbs which originally ended  $\aleph_{3-4-5}$ , and therefore had *e* for *a* in the last syllable following the rule  $a + \aleph_{3-4-5} > e$ .

This explanation, however, cannot include the *ētezib* (Babylonian *itezib*) form which is not a *tertiue laryngalis* at all.<sup>114</sup> What is even more conclusive, however, is this: as shown above, the regressive assimilation is *not at all* found in the Kirkuk tablets. It is always *iktašid* in the *verba firma* of these tablets. Nevertheless the *iktešid* form is very common for the  $\aleph_4$  verbs.<sup>115</sup> Surely, for the Kirkuk dialect one should not attempt to explain it on the basis of a regressive assimilation which is not in evidence.

Assuming, however, that the prevalence of the *t*-formations of the  $I_2$ -stem was due to a natural attempt to give bulk to the short *ikšud* preterite  $I_1$  on the analogy of the larger *ikašid* form of the present  $I_1$  and that therefore the vowel following the *t* was the same vowel which marked the  $I_1$  present form, all the difficulties involved in the change *tu* > *te* discussed in the preceding paragraph are solved, thus:

$i\aleph_1ahaz$  (original for *ihaz*) with *t*-element of  $I_2$  >  $*i\aleph_1tahaz$  > *itahaz*

$i\aleph_4ezib$  (original for *ezib*) with *t*-element of  $I_2$  >  $*i\aleph_4tezib$  >  $\begin{cases} \textit{itezib} \text{ in Kirkuk} \\ \textit{ētezib} \text{ in Assyrian} \end{cases}$

With the laryngal *h* the texts offer these instructive examples:

pres.  $I_1$  *i-he-ip-pi* (*H* 73.25) 'he shall break'

pret.  $I_2$  *iḥ-te-pi* (*H* 21.4) 'he broke'.

One more instructive detail as to the difference between the two Akkadian dialects is that offered by the verb *epēšu*. In the present  $I_1$  its form in the Law-book is *e-ep-pu-uš*,<sup>116</sup> but in our texts *i-pu-uš* (in *H* 61.9) and *e-ip-pu-uš*<sup>117</sup> (*G* 51.9). In the preterite  $I_1$  both dialects have *u* in the last syllable.<sup>118</sup>

<sup>113</sup> Lewy, *VAG*, p. 29.

<sup>114</sup> Lewy himself has felt the difficulty, cf. *VAG*, p. 33, note 4, but does not offer a satisfactory solution. Cf. last sentence.

<sup>115</sup> Cf. note 106.

<sup>116</sup> Lewy, *VAG*, p. 80.

<sup>117</sup> For initial *e*-vowel cf. p. 79 ff.

<sup>118</sup> This distinction is still to be found in Late Akkadian, cf. Ylvisaker, *BAG*, p. 73.

13. VERBA PRIMAE *u* AND *i*

Only the permansive shows any differentiation between the two dialects, the permansive I<sub>1</sub> of *ašūbu* being *ušbat* (fem.) in the Law-book but *ašbat* (*H* 71. 10) in the tablets.

## 14. VERBA MEDIAE INFIRMAE

The verbs mediae infirmae show no particular differences in the dialects. This, though, should be noticed: that while the uncontracted form of the preterite<sup>119</sup> still exists in the Assyrian in such forms as *uk-la-i-nu-u-ši*,<sup>120</sup> in the Kirkuk dialect, only the contracted form is found, thus: *ut-le-ir-šu-(ma)* which is to be read, of course, *uttersuma*.<sup>121</sup>

## 15. VERBA TERTIAE INFIRMAE

The most striking difference in this class, and one already noticed by Koschaker, is the absence of vowel contraction in the plural and subjunctive of the I<sub>1</sub> and I<sub>2</sub> stems of the Assyrian; while the Kirkuk dialect is characterized by almost unexceptional contraction.<sup>122</sup> Thus in the Assyrian the forms are always: *iqabbiani*, *ilqiuni*, *iqbiaššu*, *luqiat*, *iqtibiaššu*, etc.;<sup>123</sup> the corresponding forms in the Kirkuk tablets are always, *i-ša-sū-ū* (*CS* 11. 17), *il-qū-ū* (*TCL* 2. 5), *iq-ta-bu-ū* (*H* 15. 7).

Forms of the present I<sub>1</sub> like *i-luq-qī*, *i-ša-si-u-(ni)* of the Assyrian<sup>124</sup> as compared with *iliqqi* and *išisi* of the tablets have already been discussed;<sup>125</sup> also forms I<sub>2</sub> preterite like *luqlibi* of the Assyrian with *iqabi* of the tablets.<sup>126</sup> Interesting to note is the present of the verb *idū* (עדי) which appears in the tablets as *ni-de-(mi)*, *ti-i-de*.<sup>127</sup> In the Assyrian Law-book the final *e* due to the *ṣ*<sub>4</sub> on analogy with the other tertiae infirmae verbs has already become *i* except before affixes where the other forms remain, thus *ti-i-di* but *i-di-e-(ma)*.<sup>128</sup> In both dialects of this period, however, it is still treated

<sup>119</sup> Ungnad, *UBAG*, p. 60 ff. c.

<sup>120</sup> Lewy, *VAG*, p. 89.

<sup>121</sup> For *utlir* instead of *utlir*, cf. p. 76.

<sup>122</sup> Only one example is found in the verb forms, e. g. *i-ri-ū(ma)* (*CS* 18. 16) 'they pastured,' and this may be due to the fact that the root *re'u* is doubly weak.

<sup>123</sup> Lewy, *VAG*, p. 90.

<sup>124</sup> Lewy, *VAG*, p. 90.

<sup>125</sup> Cf. p. 75 ff.

<sup>126</sup> *Ibid.*

<sup>127</sup> Cf. p. 118.

<sup>128</sup> Lewy, *VAG*, p. 90.

as a primae *i*. In Late Assyrian, it is treated as primae *i* in the Babylonian, but as primae *u* in the Assyrian.

#### 16. VERBS WITH SUFFIXES

There are no differences in form between the dative and the accusative suffixes, but as a rule, the dative suffixes are added to the energetic mood of the verb while the accusative suffixes are added to the indicative or subjunctive. Thus:

- 1) *i-na-an-din-ši*<sup>129</sup> (*CS* 6.4) 'he shall give her'<sup>130</sup> (direct)  
but *i-na-an-din-na-aš-šu* (*CS* 6.11) 'he shall give *to* him' (indirect)
- 2) *i-din-aš-šu* (*N* 20.14) 'he gave to him' (indirect)  
but *ad-di-šu-nu-ti-(ma)* (*CS* 18.14) 'I placed them' (direct)
- 3) *at-la-din-šu-nu* (*TCL* 41.6) 'I gave them' (direct)  
but *i-din-na-aš-šu-nu-ti* (*N*. 38.14) 'he gave to them' (indirect).

#### 17. MODI

As a whole, the tablets display a marked regularity in the use of the subjunctive in the subordinate clauses.<sup>131</sup> The exceptions to this rule are not very numerous and are not surprising when it is remembered that there was no reason to be as careful in the use of their language as in an exact and precise Law-Book.<sup>132</sup> The energetic is used regularly with the dative suffixes, though in some cases<sup>133</sup> the *a* at the end seems to be nothing more than an overhanging vowel, there being no justification for its use.

#### 18. TEMPORA

The tablets use at all times the correct forms for the preterite and present,

<sup>129</sup> *ši* used correctly for feminine; but more usually *šu* is used for masculine and feminine.

<sup>130</sup> 'as wife to his son'.

<sup>131</sup> The *-ni* particle used in subordinate clause so regularly in the Assyrian Law-book, cf. Lewy, *VAG*, p. 49 ff., is almost never found in these tablets. This is one of the two distinctions between Assyrian and Babylonian which Koschaker, *NKRA*, p. 19, already notes. The other, is the absence of the uncontracted forms in these texts. Cf. p. 83 and note 122.

<sup>132</sup> Some examples are: *hu-ub-bu-lu-(mi)* (*II* 30.4) 'he owes'

*u-si-mi-hu-cš* (*H* 65.4) 'he made him joint heir'.

<sup>133</sup> Thus: *ub-ta-qa-ra* (*CS* 9.11) 'it has a claim'

*it-ta-ad-na* (*CS* 17.12) 'he gave'

*id-du-ra* (*II* 52.26) 'he feared'.

in their customary meaning of perfect and imperfect tense, respectively.<sup>134</sup> The permansive expressing the completed action<sup>135</sup> of the verb is used with transitive verbs *only* in a passive meaning.<sup>136</sup>

With the neuter verbs it is used to express completed as well as durative state, thus:

*mī-it-(mī)* (CS 15. 20) (CS 16. 46) 'had died'  
*bal-tu* (H 57. 6) 'is alive'.

### 19. VERBA FIRMA

Present (*ikašad*). Singular.

*nī-dū-ag-gal-šu-nu-ti* (H 47. 30) 'we saw them'<sup>137</sup>  
*a-dū-ga<sub>5</sub>-al* (H 27. 19) 'I saw'<sup>138</sup>  
*i-ḥa-ma-šú* (H 71. 35)<sup>139</sup>  
 (kī) *i-ka<sub>4</sub>-ša-du* (H 43. 32)<sup>139</sup>  
*i-la-ba-aš-šu* (H 60. 18) 'he shall clothe him'  
*i-pal-la-aḥ-šu-nu-ti* (H 7. 20) 'he shall serve him'  
*i-pal-la-aḥ-šu* (N 57. 7) (N 59. 13) 'he shall serve him'  
*i-pal-la-aḥ-šu* (H 59. 21) 'he shall serve her'<sup>140</sup>  
 (ša) *i-pal-la-ḥu* (H 71. 31) 'he shall serve'  
*i-pal-laḥ-šu* (H 66. 14) 'he shall serve her'<sup>140</sup>  
*i-ma-ḥa-aš* (H 27. 20) 'he struck'<sup>138</sup>

<sup>134</sup> I can find no basis for Koschaker's statement. *NKRA*, p. 13, note 1: "Man konstatiert gelegentlich Verwechslung von Präteritum und Präsens." Cf. however note 154 and note 250.

<sup>135</sup> Cf. Ungnad, *UBAII*, p. 40 d\*.

<sup>136</sup> *ša-ki-in* (CS 14. 8) 'it has been deposited'

*ša<sub>7</sub>-ṭi-ir* (H 2. 26) 'was written'. No examples of a permansive of a transitive verb with active meaning, as in the Amarna Letters, are found. Cf. however note 162.

<sup>137</sup> *ú ni-nu ni-da-ag-gal-šu-nu-ti ki-ma na-su-ú* 'and we saw him carrying'. For use of present in contemporaneous action cf. Ungnad, *UBAII*, p. 39, § 30 br.

<sup>138</sup> *a-dū-ga<sub>5</sub>-al (ki)-me-e i-ma-ḥa-aš* 'I saw when he struck', cf. note 137.

<sup>139</sup> K. was willed certain properties by her husband; he then adds (H 71. 33) (*šum-ma*) *salki-ra-še a-na mu-ti ú-ša-ab ṣubātīḫi-a i-ḥa-ma-šú ú c-ri-še-ša ú-še-šú-uš* 'if K. marries she — the garments, and her husband shall take her away.' The verb *ḥamāšu* thus far has been found only in the II<sub>1</sub> and II<sub>2</sub> conjugations with the meaning 'to do violence to'; 'to plunder'; 'to rape'. The form *ḫamašu*, however, is I<sub>1</sub> and none of these meanings will suit the context. It seems to have some idiomatic meaning with the word for garments, which at present is not clear. Cf. חמין בגדים, Isaiah 63. 1.

<sup>140</sup> For the use of the masculine suffix with feminine meaning cf. note 129.

- i-na-ap-pa-al-(ma)* (CS 8.8) 'he shall pluck out'  
*i-ša-bat-sú-(ma)* (H 96.18) (TCL 10.22)<sup>141</sup> 'he shall seize him'  
*iš-ša-ba-at* (N 8.9) 'will have'<sup>142</sup>  
*i-ša-aṭ-tar* (TCL 41.36) 'he shall write'  
*i-ša<sub>7</sub>-aṭ-tá-ar* (H 43.38) 'he shall write'  
*i-ša<sub>7</sub>-ka<sub>4</sub>-an* (H 95.20) 'he shall place'  
*a-ša-ap-par* (H 105.12) 'I shall send'  
*i-za-az* (H 43.39) 'he was standing'

Present (*ikašad* form). Plural

- i-ma-dá-ad-du* (H 51.8) 'they shall measure'  
*i-ma-ḥa-ṣú* (VAS 108.9) 'they shall drive in'  
*[i]-ma-ḥa-ṣú* (VAS 109.7) 'they shall drive in'

Present (*ikašid*). Singular

- i-bá-aq-qi-in* (H 9.14)<sup>144</sup>  
*i-ḥa-li-iq-(ma)* (N 8.12) 'he will be lost'  
*i-la-bi-it* (H 97.7) (H 98.10,12)<sup>145</sup> 'they shall knead'  
*te-zí-ri-ib* (G 28.22) 'you shall press'<sup>146</sup>  
*i-qar-ri-ib-šu* (H 67.54) 'they shall lay rival claim to it'<sup>147</sup>  
*i-qi-ri-ib* (N 89.12) 'he shall lay rival claim to'<sup>148</sup>  
*i-qi-ir-ri-ib* (N 8.16) 'he shall lay rival claim to'<sup>148</sup>  
*i-na-ak-ki-is* (H 55.21) (H 56.32) (passim) 'he shall cut off'  
*i-na-ki-is* (H 85.30) 'he shall cut off'<sup>149</sup>

<sup>141</sup> For change of *š* to *s* after *t*, cf. p. 74.

<sup>142</sup> *pi-ir-qa iṣ-ša-ba-at* if the field 'will have a claim', for the usual *pi-ir-qa irtaši*, *iṣ-ša-ba-at* is for *iṣ-ta-ba-at*; for the change *št* to *ss*, cf. p. 73.

<sup>143</sup> While the tablet was written, *ú ma-ri-ḥa-a-a i-za-az* 'Ariḥa was standing by'. For use of present, cf. note 137.

<sup>144</sup> Tablet H 9 deals with the following case: A and B promise to return two sheep which they owe to C. The tablet then continues, that if they do not return them (l. 13) *i-na muḫḫibi-šu-nu* (l. 14) *i-bá-aq-qi-in* (l. 15) *ú ú-la-ad*. Does that mean that C will hold them responsible for the clipping of the wool and for any young which they will bear? Difficult to interpret. Cf. H 96, ll. 11-15.

<sup>145</sup> Singular verb with plural subject.

<sup>146</sup> Used of *membrum virile*. For change of *ta* > *te*, cf. Ungnad, *UBA*, p. 42 ce. For change of *za* > *zi* due to characteristic Assyrian vowel assimilation, cf. p. 75 ff.

<sup>147</sup> Originally meaning 'to approach', cf. Koschaker, *NKRA*, p. 26, note 4. For use of plural subject with singular verb, cf. note 145.

<sup>148</sup> *iqirib* for *iqarib*. For characteristic Assyrian assimilation, cf. p. 75.

<sup>149</sup> For omission of doubling, cf. p. 65.

*i-na-ak-ki-is-(ma)* (*H* 29. 17) 'he shall cut off'  
*i-na-ak-ki-su* (*H* 33. 7) (*N* 9. 16) 'he shall cut it off'  
*i-ra-ab-bi-iš* (*H* 26. 9)<sup>151</sup>  
*i-qi-ib-be-(ir)* (*G* 9. 16)<sup>152</sup>

Present (*ikašid*). Plural

*i-la-bi-nu* (*G* 68. 9) (*H* 97. 13) 'they shall mould'  
*i-qi-ri-bu* (*H* 71. 14) 'they shall lay rival claim'<sup>153</sup>

Present (*ikašud*)

*i-ma-an-gur* (*H* 29. 15, 37) (*H* 46. 22)<sup>154</sup> 'he will be willing'

Preterite (*ikšud*). Singular

*im-šu-ru* (*H* 76. 32) 'they impressed'  
*i-ma-gu<sub>5</sub>-ru* (*H* 49. 28) 'he was willing'  
 (ša) *iš-tù-ru* (*H* 106. 10) 'he wrote'  
 (ša) *aš-tù-ru* (*TCL* 41. 32) 'I wrote'  
 (ša) *al-tù-ru* (*G* 33. 14)<sup>155</sup> 'I wrote'  
 (ša) *id-bu-bu* (*G* 1. 18) 'he spoke'  
*ik-šu-ud* (*H* 73. 36) (*N* 91. 6) (*G* 2. 10) 'it has reached'  
*aš-pur-(mi)* (*CS* 16. 25) 'I sent'  
*iz-ku-ra-aš-šu* (*CS* 16. 66) 'she pronounced against him'

<sup>150</sup> *i-na-ak-ki-su* < \**i-na-ak-ki-is-su* which in term is for *i-na-ak-ki-is-šu*. For omission of gemination, cf. p. 65. For change of *sš*, cf. *ss*, cf. p. 74. One must be on continual guard for these changes; and not assume too readily that the *u* is merely an overhanging vowel.

<sup>151</sup> *ra-bi-ši-ia i-ra-ab-bi-iš*; meaning not certain. The verb seems to be a denominative used with *rabišu* 'sheepfolds', 'possessions' with the meaning 'to have charge over these possessions'.

<sup>152</sup> *iqibber* for *iqibbir*, see above p. 76.

<sup>153</sup> Cf. notes 147 and 148.

<sup>154</sup> The context of *H* 46. 22 demands a preterite.

<sup>155</sup> This is undoubtedly the reading. Gadd's reading, *G*, p. 111, *ap?-du-ru* makes no sense whatever; cf. Gadd's note, *ibid.*, p. 112. Gadd's translation, *ibid.*, p. 111: 'now the tablet concerning the silver which I have cancelled (?) to Hut-Tesup, now this day that tablet is broken', should be amended as follows: 'now the tablet concerning the silver which I have written to Hut-Tesup; now this day, that tablet I have broken'. The reading *ik-te-be*, *G*, p. 112, 33. 7, may, of course, also be *ch-te-pi*; and may be translated by the first person, which is what the context demands; cf. *al-tù-ru* (1. 14) and *a-ša-as-ši* (1. 19). For change of *št* to *lt*, cf. above p. 73.

Preterite (*ikšud*). Plural

*ir-ku-su* (TCL 41.4) 'they contracted'

Preterite (*ikšid*). Singular

*ik-ki-is-su* (H 39.10) 'he cut it off'<sup>156</sup>

*ik-ki-is* (H 39.10) 'he cut off'

*ik-ši-šu* (H 15.30)<sup>156a</sup>

Preterite (*ikšad*)

*im-ḥa-aš* (H 27.12, 18) 'he struck'

(*šumma la*) *aš-ba-tù-šu-nu-ti-(ma)* (CS 18.17) 'I seized them'

I<sub>1</sub> Permansive-Singular

*ša-ki-in* (CS 14.8) 'it has been deposited'

(*ša*) *ba-aq-nu* (H 18.14) 'clipped'

(*ša*) *bá-aq-nu* (H 24.10) 'clipped'

(*lu*) *bal-tá-ta-(mī)* (H 48.13) 'may you keep well'

(*adū*) *bal-tu<sub>4</sub>* (H 67.36) 'is alive'<sup>157</sup> (fem.)

(*adī*) *bal-tu<sub>4</sub>* (H 59.12) (H 59.20) 'is alive'

(*adū*) *bal-tū* (H 57.6) 'is alive'

(*adū*) *bal-tū* (H 67.12) (H 73.12) 'is alive' (fem.)

(*adī*) *bal-tá-tu<sub>4</sub>* (H 71.9) 'is alive' (fem.)

(*adī*) *bal-tá-at* (N 26.12) 'is alive' (fem.)

(*adū*) *ba-al-ta-tū* (CS 6.15) 'is alive' (fem.)

(*adī*) *bal-tú* (CT II 21.8) 'is alive'

*ga<sub>6</sub>-mi-ir* (H 76.31) 'is completely paid'

*ša<sub>7</sub>-tī-ir* (H 2.26) (H 40.21) (H 56.36) 'was written'

*ša<sub>7</sub>-tī-ir* (H 5.21) 'was written'

*ša<sub>7</sub>-tar* (H 25.26) 'was written'<sup>158</sup>

*ša<sub>7</sub>-tī-ir* (H 15.49) (H 33.42) 'was written'

*ša<sub>7</sub>-tī-ir* (H 17.31) (H 22.18) (H 69.15) 'was written'

<sup>156</sup> Root is *nakāsu*. For assimilation of *n* to *k*, cf. p. 74. For change *sš* to *ss*, see above p. 74.

<sup>156a</sup> From root  $\sqrt{kašāšu}$ . Meaning here seems to be, the debt which 'they contracted'. Cf. note 176.

<sup>157</sup> Usually the masculine permansive is used also for feminine. Cf., however, the correct use of the feminine permansive in (H 71.9) (*adi*) *bal-tá-tu<sub>4</sub>*; (N 26.12) *bal-ta-at*, etc.

<sup>158</sup> The only example; instead of the customary *šaṭir* and *šaṭer*.

*ša-te<sub>4</sub>-ir* (*H* 59.26) 'was written'<sup>150</sup>  
*ša<sub>7</sub>-ti-ir* (*H* 60.23) (*II* 67.55) 'was written'  
*(ša) qa-aš-šú* (*G* 3.29) 'shorn'<sup>160</sup>  
*ma-di-id-(mi)* (*N* 13.18) 'was measured'  
*ma-ḫi-iš* (*H* 28.14) (*CT* II 21.20) (*G* 71.4)<sup>161</sup>  
*na-ki-is* (*H* 14.4) 'has been set apart'  
*sa-li-iṭ* (*H* 15: 12, 14, 18, 19, 20, 25) 'is lacerated'  
*ša-bi-it* (*H* 5.17) 'resorts to'<sup>162</sup>  
*ka<sub>4</sub>-ši-id* (*H* 75.6) (*H* 55.10) 'reached'  
*(manū) ḫa-aš-ḫu* (*H* 79.20) 'he desires'  
*ḫa-aš-ḫu-ú* (*TCL* 7.7) 'she desires'  
*(šumma) ḫa-aš-ḫu-(mi)* (*CS* 5.7) 'he desires'  
*(šumma) ḫa-aš-ḫu-ú-(mi)* (*CS* 5.9) 'he desires'  
*(šumma) ḫa-aš-ḫu* (*CS* 5.10) 'he desires'  
*(ašar) ḫa-ši-iḫ-šu-nu* (*H* 80.29)<sup>163</sup> 'he desires'

# I<sub>1</sub> Permansive-Plural

*na-ak-sú* (*H* 15.17) 'cut off'  
*ša<sub>7</sub>-aṭ-ru* (*H* 61.9) 'were written'  
*ba-aq-nu* (*H* 38.3) (*G* 26.12) (*H* 9.6) 'clipped'  
*bá-aq-na-tu* (*G* 77.3) 'clipped' (fem.)  
*bá-qi-ma-tu<sub>4</sub>* (*H* 14.9)<sup>164</sup> 'clipped' (fem.)  
*qa-aš-šú* (*G* 30.13) 'shorn'  
*bal-tu<sub>4</sub>* (*H* 7.19) 'are alive'  
*bal-te (mi)* (*CS* 19.17)<sup>165</sup> 'are alive'

# I<sub>1</sub> Infinitive

*(ana) na-ka-si* (*H* 47.14) 'for cutting down'

<sup>150</sup> *šaṭer* for *šaṭir*, cf. p. 76.

<sup>160</sup> Gadd's reading *qazzutuš*, *G*, p. 68 (and cf. note on p. 89), is an error for *qa-aš-šú dam-qú*.

<sup>161</sup> Used with *pu-ti* in the idiomatic meaning 'to stand surety'. Cf. Gadd, *G*, p. 138, 71 and notes on lines 4, 8.

<sup>162</sup> Tablet 51.16; *(ma)-an-nu ša i-na be-ri-šu-nu ibalkatutu<sub>4</sub> à di-na ša-bi-it* 'whoever between them violates (the contract) and resorts to legal proceedings'. *šabit* here seems to be a permansive used with transitive verb in the active sense.

<sup>163</sup> The ending *šunu* seems, totally, out of place.

<sup>164</sup> In the Kirkuk tablets, this is the only example of *baqāmu* instead of *baqānu*. The former, however, is the usual in Late Assyrian, cf. Delitzsch, *HWB*, p. 181.

<sup>165</sup> Peculiar plural form for the customary *balṭu*.

- (*ana*) *ša-ba-ti* (II 44.12) 'for seizing'  
 (*inu*) *na-pu-ḫi* (H 95.7) 'beginning'  
 (*ina*) *ga<sub>5</sub>-mu-ar* (H 10.14) 'end'  
 (*ina*) *ga-ma-ar* (H 96.7) 'end'

I<sub>2</sub> Present

*il-ta-pa-at* (H 35.8) 'he shall affix'

I<sub>2</sub> *iklašad* Preterite

- im-ta-šar* (H 30.11) 'he impressed'  
*im-ta-ša-ar-(mi)* (H 68.38) 'he impressed'  
*ir-ta-ak-sū-(mi)* (II 80.12)<sup>166</sup> 'I tied it'  
*ir-ta-ak-sū-nu-ti* (N 78.15)<sup>167</sup> 'I tied them'  
*ar-ta-ak-ka<sub>4</sub>-as* (G 42.9) 'I tied'  
*iš-ša-bat-sū-nu-ti* (H 47.11)<sup>168</sup> 'he seized them'  
*iš-ša-ba-at* (H 5.27)<sup>169</sup> 'he seized'  
*iš-tap-ra-an-ni* (II 4.6) (H 47.15) 'he sent me'  
*al-ta-par-(mi)* (II 41.21) 'I sent'<sup>170</sup>  
*aš-ta-par-šu-(mi)* (CS 16.27) 'I sent him'  
*aš-ša-par* (S 9) 'I sent'<sup>171</sup>  
*ab-ta-táq* (G 33.8) 'I cut off'<sup>172</sup>  
*iš-ta-ka-an* (II 58.10) 'he deposited'  
*iz-za-ak-ra-an-ni-(ma)* (CS 16.10)<sup>173</sup> 'he pronounced against me'  
*az-za-ka<sub>4</sub>-šu-(mi)* (CS 16.21) 'I pronounced against him'<sup>173</sup>  
*ak-ta-ta-ma-at-ki-(mi)* (II 48.15)<sup>198</sup>

<sup>166</sup> *ir-ta-ak-šu-(mi)* for *ir-ta-ak-as-šu-(mi)*. For the dropping of the *a*-vowel in the *as* syllable, i. e. vowel syncope, cf. Ungnad, *UBAII*, p. 9 ca. For change of *sš* to *ss*, see above p. 74. Note use of third person prefix instead of the first person, as required by context.

<sup>167</sup> *ir-ta-ak-šu-nu-ti* for *\*ir-ta-ak-as-šu-nu-ti*, cf. note 166.

<sup>168</sup> *iš-ša-bat-sū-nu-ti* for *\*iš-ta-bat-šu-nu-ti*. For change *st* to *ss* and *tš* to *ts*, cf. pp. 73 f.

<sup>169</sup> For change *st* to *ss*, cf. p. 73.

<sup>170</sup> For change *št* to *lt*, cf. p. 73.

<sup>171</sup> The form is difficult, though the context is clear. The only solution would be to assume that it is an historical writing for *as-ša-par* (for pronunciation of *š* as *s* among the Hurrians, cf. pp. 71 f.). This form *as-ša-par* would then be a I<sub>2</sub> preterite, instead of *as-ta-par*; for change of *st* to *ss*, cf. pp. 71 f. Perhaps the second *ša* is a scribal error for *ta*. The difference in the signs is not very great.

<sup>172</sup> Line 8 of G 33 is to be read *ši-is-ši-ik-taša ab-ta-táq* 'her hem I cut off', i. e. 'I divorced her'. Cf. Koschaker, *NKR.1*, p. 24 and note 3.

<sup>173</sup> For change *zt* to *zz*, cf. p. 73.

I<sub>2</sub> *iklašad* Preterite. Plural

- ir-ta-ak-sú-uš* (II 80.4) 'they contracted it'  
*it-tap-ru-uš* (II 43.30) 'they sent him'<sup>174</sup>  
*iš-tap-ru-an-ni-(mi)* (II 48.10) 'they sent me'  
*iš-ta-ap-ru-uš* (II 49.8.12) 'they sent him'  
*iš-ta-ap-ru-šu-nu-ti* (G 28.30) (G 35.27) 'they sent them'

I<sub>2</sub> *iklašid* Preterite

- ir-ta-pí-is-sú* (H 52.9) (H 52.19)<sup>175</sup> 'he struck him'  
*ar-ta-pí-is-(ma)* (II 52.25)<sup>148</sup> 'I struck'  
*iš-ta-ri-iq-(ma)* (II 35.4) 'he stole'

I<sub>2</sub> *iklašud* Preterite

- im-ta-qú-ut-(ma)* (CS 15.19) 'it fell'

II<sub>1</sub> Preterite. Singular

- ú-he-im-mi-iš* (H 47.27) 'he robbed'

II<sub>1</sub> Present. Singular

- ú-na-sa-ak-(ma)* (H 75.7) 'he shall choose'  
*ú-na-as-sa-ak-(ma)* (H 75.10) 'he shall choose'  
*ú-ka<sub>4</sub>-aš-ša-as-sú-nu-ši* (G 12.31) 'he shall offer as payment of debt'<sup>176</sup>

<sup>174</sup> *it-tap-ru-uš* for *iš-tap-ru-uš* and perhaps through the further change *iš-tap-ru-uš* to *il-tap-ru-uš*.

<sup>175</sup> For change of *sš* to *ss*, cf. p. 74.

<sup>176</sup> From *kašāsu*. Cf. *kaššum* 'a creditor' in Köhler-Ungnad, "Hammurabi Gesetz", vol. 2, p. 141. Also *kiššatum* 'Schulddienst', *ibid.* The passage in the code which clarifies the meaning is as follows: *šum-ma a-wi-lum aššat-su mar-šu ú marat-su a-na kaspi id-di-in ù lu a-na ki-še-ša-a-tim it-ta-an-dī-in* (col. III r. 59). 'Given: A man sold his wife, son and daughter for money, or if as payment for debt he gave (them).' This meaning fits tablet G 12 excellently. The passage involved is (G 12.25) 'if T bears a son and H divorces her, 40 shekels of silver he shall pay in full to P (probably father of T, though the text at the beginning of tablet is broken and makes this fact uncertain) and the sons of T la u-ka<sub>4</sub>-aš-ša-as-šu-nu-ši a-na arđūtiti la i-na-an-din-šu-nu' 'he shall not offer as payment for debt or sell into slavery'.

Gadd's translation, *G*, p. 97, "and H shall not take possession of his sons by Tesserai and shall not sell them into slavery" does not make very good reading. The difficulty lay in deriving it from *kašādu*, cf. *G* p. 98, note to line 31.

One difficulty must still be noted, e.g. the use of the dative suffix *šu-nu-ši*, which is not used in these tablets for the customary *šu-nu-ti*.

*ú-ma-aš-šar* (*H* 72. 16) 'he shall consign'

*ú-ma-aš-ša-ar* (*G* 43. 16) 'he shall release'

*ú-maš-šar-šu* (*H* 73. 22) 'she shall cause to be placed on him'<sup>177</sup>

#### II<sub>1</sub> Permansive.<sup>68</sup> Singular

*hu-bu-ul-lu-(mi)* (*G* 61. 13) 'he is obligated'<sup>178</sup>

*hu-ub-bu-lu-(mi)* (*H* 30. 4) 'he owes'<sup>178</sup>

*pu-ur-ša* (*H* 43. 34)<sup>179</sup>

*sú-um-mu-uh* (*H* 7. 5) (*H* 72. 27) 'is considered joint heir'

#### II<sub>1</sub> Permansive. Plural

*hu-bu-lu-ni* (*H* 15. 10) 'we owe'

*su-um-mu-uh* (*G* 12. 24) 'they are considered joint heir'

#### II<sub>1</sub> Imperative

*zu-uk-ra-aš-šu-(mi)* (*CS* 17. 29)<sup>186</sup> 'pronounce against him'

*ku-ul-li-im-an-ni-(mi)* (*H* 48. 16) 'make clear unto me'

#### II<sub>1</sub> Infinitive<sup>68</sup>

(*ina*) *bu-qu-ni* (*G* 77. 11) 'in the clipping'

#### II<sub>2</sub> Present. Singular

*uk-te-bi-ir-šu* (*N* 59. 23) (*CS* 3. 23) 'he shall bury him'

#### II<sub>2</sub> Preterite. Singular

*um-te-eš-ši-ir-(mi)* (*H* 14. 16) 'I have consigned'

*un-te-eš-ši-ir-(mi)* (*H* 29. 5)<sup>180</sup> 'I have consigned'

<sup>177</sup> Here used with *ab-bu-ta-šu-nu* 'their slave marks'. For *mašāru* in the sense of 'scratch', 'cut into', cf. Delitzsch, *HBW*, p. 433. It must be noted, however, that the examples there cited are I<sub>1</sub>.

<sup>178</sup> The *u* is here an overhanging vowel; cf. p. 83.

<sup>179</sup> Text *II* 43, ll. 31-33, is not clear. The text reads: *ù ba-nu* (or *pá-nu*) *kí i-ka-ša-du* *ù pu-ur-ša*. This is part of the answer given by *U*<sub>2</sub>, the owner of a servant whose wife was convicted by the judges for striking a man on a public highway. The judges sent two officials to *U*<sub>2</sub>. The reason for this mission is not stated. But *U*<sub>2</sub>'s answer is stated as follows: "She is the wife of my slave" and then the text quoted at the beginning of the note follows. The usual meanings of the verbs *kašādu* and *parāšu* do not suit.

<sup>180</sup> For change of *mt* to *nt*, cf. p. 74.

[*un-te*]-*eš-ši-ir* (*G* 1. 8) 'I have consigned' <sup>180</sup>  
*un-te-eš-ši-ir-šu-nu-ti* (*N* 78. 16) 'I have consigned them' <sup>180</sup>  
*um-te-eš-ši-ir* (*G* 55. 8) 'he has consigned' <sup>180</sup>  
*un-taš-ši-ir* (*G* 33. 23) <sup>181</sup> 'I have consigned'  
*ú-si-mi-hu-eš* (*H* 65. 4) <sup>178, 182</sup> 'he made him joint heir'  
*ub-ta-qar-ra* (*CS* 9. 11) <sup>183</sup> 'it has a claim (against it)'  
*ub-ta-aq-qar* (*G* 30. 9) 'it has a claim (against her)'  
*ub-ta-qar* (*G* 31. 19) 'it has a claim (against it)'  
(*šumma lu*) *uk-te-ši-du-ma* (*G* 29. 29) 'he seized'  
*uh-te-im-mi-iš* (*H* 47. 7) 'he carried off'

II<sub>2</sub> Preterite. Plural

*us-si-im-mi-hu-un-ni-(ma)* (*G* 29. 10) <sup>184</sup> 'they made me joint heir'  
*um-te-eš-ši-ru-uš-šu-nu-ti* (*G* 10. 18) 'they consigned them'  
*nu-un-te-eš-ši-ir* (*G* 50. 15) 'we consigned'

IV<sub>2</sub> Preterite. Plural

*it-ta-am-ga<sub>5</sub>-ru* (*G* 1. 5) 'they have agreed'  
*it-ta-am-gu<sub>5</sub>-ru* (*H* 99. 4) 'they have agreed'  
*it-tam-ga<sub>5</sub>-ru-(ma)* (*G* 50. 5) 'they have agreed'  
*nu-up-te-ih-hi-ru* (*H* 99. 11) 'we shall accumulate'  
*ni-it-tam-ga<sub>5</sub>-ru-(mi)* (*TCL* 12. 20) 'we have agreed'

20. *nudānu* 'give'I<sub>1</sub> Present. Third person. Singular

*i-na-an-din* (*H* 69. 11) (*H* 73. 40) (*H* 79. 8) (passim)  
*i-na-an-din* (*H* 55. 20) <sup>145</sup>  
*i-na-an-di-in* (*N* 13. 16) <sup>145</sup>  
*i-na-an-di-in* (*N* 90. 8)  
*i-na-an-din-(mi)* (*G* 52. 18)  
*i-na-din* (*H* 84. 19) (*H* 61. 8) <sup>185</sup>

<sup>181</sup> Note the regular *uktaššid* form of the II<sub>2</sub> stem and cf. with the *ukteššid* forms immediately preceding. For treatment of this vowel assimilation, cf. p. 76.

<sup>182</sup> *ú-si-mi-hu-eš* for \**us-si-mi-hu-eš* from \**us-ti-mi-hu-eš*. For loss of doubling, cf. p. 65. For change of *st* to *ss*, cf. p. 73.

<sup>183</sup> The *a* is an overhanging vowel.

<sup>184</sup> Cf. note 182. In this form the doubling is written.

<sup>185</sup> For comparison with the more usual *inandin* form, cf. p. 79.

- i-na-an-dì* (*H* 92. 4, 7, 13, 15)<sup>101</sup>  
*i-na-an-dì* (*G* 1. 13)<sup>101</sup>  
*i-na-dì-in* (*G* 20 + 23. 6)  
*i-na-an-din-(ma)* (*H* 83. 30)  
*i-na-an-din-ši* 'shall give her' (*H* 101. 11) (*TCL* 7. 9) (*CS* 6. 14)  
*i-na-an-dì-nu* (*N* 59. 18)<sup>178</sup> (*CS* 5. 25)  
*i-na-an-dì-in-nu* (*TCL* 44. 12)<sup>178</sup>  
*i-na-an-din-na-aš-šu* (*CS* 6. 11) 'he shall give to him'  
*i-na-an-dì-nu* (*H* 73. 23)<sup>180</sup>

I<sub>1</sub> Present. First person. Singular

- a-na-an-din-(mi)* (*G* 29. 18) (*G* 52. 18)  
*a-na-an-din* (*II* 1. 9) (*II* 1. 27) (*H* 2. 8) (passim)  
*a-na-din* (*CS* 5. 9)

I<sub>1</sub> Present. Third person. Plural

- i-na-an-dì-i-nu* (*H* 85. 19)  
*i-na-an-din-nu* (*H* 15. 38) (*II* 16. 19) (*II* 96. 14) (passim)  
*i-na-an-dì-na-aš-šu-nu-ti* (*H* 54. 15) 'they shall give them'<sup>187</sup>  
*i-na-an-dì-nu* (*N* 19. 16, 20) (*N* 31. 16) (passim)  
*i-na-dì-nu* (*N* 25. 13) (*VS* 107. 4)

I<sub>1</sub> Present. First person. Plural

- ni-na-an-din* (*TCL* 46. 29)

I<sub>1</sub> Preterite. Third person. Singular

- i-din* (*H* 84. 7, 8) (*H* 56. 12) (passim)  
*li-id-dì-(ma)* (*H* 106. 14) 'let him give'  
*id-din* (*G* 39. 8)  
*id-dì-in* (*G* 11. 6, 8) (*G* 20 + 23. 2)  
*i-id-dì-in* (*N* 90. 6)  
*i-din<sup>in</sup>* (*N* 85. 15) (*N* 85. 17)<sup>188</sup>  
*i-din<sup>in</sup>* (*N* 60. 5)<sup>188, 145</sup>

<sup>180</sup> Meaning of line not clear.

<sup>187</sup> An exception to the rule that only the dative suffixes are added to the energetic mood of the verb, cf. p. 84.

<sup>188</sup> Adding of the *in*-syllable due no doubt to the frequency with which *nadānu* is expressed by an ideogram where the *in* acts as complement.

- id-di-en* (*N* 72. 6)<sup>189</sup>  
*in-di-in* (*H* 90. 7)<sup>190</sup>  
*id-di-na-am-(ma)* (*H* 46. 8)  
 (ša) *in-di-nu* (*H* 33. 8)  
 (ša) *id-di-nu* (*CS* 3. 9) (*N* 59. 9)  
*id-di-nu* (*H* 64. 8)<sup>178</sup>  
*id-di-na-aš-šu* (*H* 63. 6) (*H* 63. 7) (*H* 76. 9) (passim) 'he gave to him'  
*id-din-aš-šu* (*N* 20. 14) 'he gave to him'  
*id-di-ni-iš* (*N* 18. 10) 'he gave to her'<sup>192</sup>  
*i-din-na-šu* (*N* 7. 13) 'he gave to him'  
*id-dá-na-aš-šu* (*N* 11. 9) 'he gave to him'<sup>193</sup>  
*i-din-na-aš-šu* (*N* 53. 8) (*N* 32. 9) 'he gave to him'  
*id-na-aš-šu* (*H* 80. 27) 'I gave to him'<sup>194</sup>  
*i-di-na-aš-šu* (*H* 84. 9) 'he gave to him'  
*i-di-na-aš-ši* (*H* 76. 5) 'he gave to her'  
*id-dá-na-aš-šu-nu-ti* (*N* 31. 12) 'he gave to them'<sup>193</sup>  
*i-din-na-aš-šu-nu-ti* (*N* 38. 14) 'he gave to them'  
*id-di-na-aš-šu-nu-ti* (*N* 52. 16) (*N* 67. 14) (*N* 71. 14) (passim) 'he gave to them'  
*id-di-na-aš-šu-nu-ti* (*CS* 12. 6) 'he gave to them'  
*i-id-di-na-aš-šu-nu* (*N* 19. 13) 'he gave to them'  
*i-din-na-aš-šu-nu* (*N* 83. 23) 'he gave to them'  
*id-di-šu-nu-ti* (*CS* 18. 8) 'he placed them'

# I<sub>1</sub> Preterite. First person. Singular

- ad-din* (*H* 32. 6)  
*ad-din-(mi)* (*H* 84. 12)  
*ad-di-nu-(ma)* (*G* 29. 14)  
*ad-di-šu-nu-ti-(ma)* (*CS* 18. 14) 'I placed them'

<sup>189</sup> For the writing *en* of the last syllable, cf. p. 68.

<sup>190</sup> For nasal dissimilation, cf. p. 75.

<sup>191</sup> For complete dropping of final *n*, cf. p. 75.

<sup>192</sup> Note the *i*-vowel of the last syllable instead of the *a*-vowel, cf. examples on p. 94. This is due, no doubt, to the loss of accent which the syllable suffered when only the *š* of the suffix was added.

<sup>193</sup> The variants *idnaššu* and *iddanaššu* by the side of the usual *idinaššu* show that the second syllable was pronounced indistinctly because of the accented *aš*-syllable following.

<sup>194</sup> Note careless use of third person prefix for first. See also note 193.

I<sub>1</sub> Preterite. Third person. Plural

- i-dì-nu* (*N* 15.8)  
*id-dì-nu* (*H* 64.5)  
*i-di-nu* (*N* 3.7) (*N* 37.9)  
*i-din-nu* (*N* 38.11)  
*li-id-dì-nu* (*G* 14.9)<sup>195</sup>  
*i-din-na-aš-šu* (*N* 60.10) 'they gave to him'  
*i-id-di-nu-ni-iš-šu* (*N* 19.19) 'they gave to him'<sup>195a</sup>

I<sub>1</sub> Preterite. First person. Plural

*ni-id-dì* (*H* 27.5)

I<sub>1</sub> Permansive

- na-ad-nu* (*H* 23.6)<sup>175</sup> (*H* 23.10)<sup>175</sup> 'is given'  
*na-ad-na-at* (*H* 71-18)  
*na-ad-nu* (*G* 68.2) 'are given'  
*na-din* (*G* 68.6) 'is given out'

I<sub>1</sub> Imperative

- i-din-(ma)* (*G* 35.22)  
*i-din-(ma)* (*H* 102.10)  
*id-na-a-(ni)* (*CS* 16.81)<sup>196</sup>

I<sub>2</sub> Present

No examples found.

I<sub>2</sub> Preterite. Third person. Singular

- it-ta-din* (*H* 33.13) (*H* 44.8) (*H* 47.14) (passim)  
*it-ta-dì-in* (*H* 57.8) (*N* 20.11) (*N* 35.9) (passim)  
*it-ta-dì-en* (*N* 6.6) (*N* 89.7)<sup>189</sup>  
*it-ta-din-(mi)* (*H* 43.4) (*CS* 15.13)  
*it-ta-ad-na* (*CS* 17.12)<sup>183</sup>  
 (ša) *it-ta-ad-nu* (*CS* 5.5)  
*it-ta-dì-iš* (*H* 47.14) 'he gave it'<sup>191</sup>  
*it-ta-dì-iš-šu* (*H* 35.6) 'he sold him'<sup>191</sup>  
*it-ta-ad-na-aš-šu* (*N* 5.10) 'he gave to him'  
*it-ta-ad-na-an-ni-(mi)* (*CS* 16.48) 'he gave to me'  
*it-ta-din-šú-nu-ti* (*N* 46.15) 'he gave them'

<sup>190</sup> For use for precative *lu* with preterite to express wish, cf. Delitzsch, *AG*, p. 246.

<sup>195a</sup> Note the rare and unusual use of *ni* in these texts.

<sup>196</sup> Dual.

I<sub>2</sub> Preterite. First person. Singular

*at-ta-din* (*H* 25.6) (*H* 53.7) (*H* 83.28) (passim)  
*at-ta-din-(mi)* (*H* 10.9) (*H* 17.13) (*H* 18.13) (passim)  
*at-ta-din-šu-(me)* (*H* 19.10) 'I gave him'  
*at-ta-dì-šu-(ma)* (*H* 26.5) 'I gave to him'  
*at-ta-din-šu-nu* (*TCL* 41.6) 'I gave them'  
*at-ta-din-su* (*G* 42.7) 'I gave her'

I<sub>2</sub> Preterite. Second person

*ta-at-ta-dì-mi* (*N* 53.30)<sup>191</sup>

I<sub>2</sub> Preterite. Third person. Plural

*it-ta-ad-nu* (*N* 46.11) (*N* 67.11) (*N* 70.8) (passim)

I<sub>2</sub> Preterite. First person. Plural

*ni-it-ta-din* (*H* 5.8) (*H* 55.12) (*TCL* 46.6)

## 21. QUADRILITERAL VERBS

## IV Present. Singular

<i>ib-ba-la-ka<sub>4</sub>-tù</i>	( <i>H</i> 30.27) ( <i>H</i> 30.30) 'will violate'	<sup>197</sup>
<i>i-ba-la-ka-tu<sub>4</sub></i>	( <i>H</i> 58.14)	"
<i>ib-bá-la-ka<sub>4</sub>-tu<sub>4</sub></i>	( <i>H</i> 60.19)	"
<i>i-bal-ka-tu<sub>4</sub></i>	( <i>H</i> 61.8)	"
<i>ib-bal-ka-tu<sub>4</sub></i>	( <i>H</i> 68.22)	"
<i>i-bal-ka<sub>4</sub>-tù</i>	( <i>N</i> 3.15)	"
<i>i-ba-la-ak-tu<sub>4</sub></i>	( <i>N</i> 8.18)	"
<i>i-ba-la-ak-ka<sub>4</sub>-a-tu<sub>4</sub>-(ma)</i>	( <i>N</i> 11.12)	"
<i>i-bal-ka<sub>4</sub>-at</i>	( <i>N</i> 14.18)	"
<i>i-bal-la-ka<sub>4</sub>-tu<sub>4</sub></i>	( <i>N</i> 32.14)	"
<i>ib-ba-la-ka<sub>4</sub>-tu<sub>4</sub></i>	( <i>N</i> 89.16)	"

<sup>197</sup> For meaning cf. Gadd, *G*, p. 85. The *u*-vowel is due to the fact that it is always in a subordinate clause introduced usually by *manūme*; in *N* 14.1, 8, by *šumma*.

## 22. IRREGULAR VERBS

*Primae Infirmæ*I<sub>1</sub> Present. Singular. Primæ  $\aleph_{1-2}$ 

- i-ik-kál* (H 26.15) 'he shall use'  
*i-ik-ka<sub>4</sub>-al* (TCL 7.12) 'he shall use'  
*a-ka-al* (H 11.28) 'I shall use'  
*i-ḥa-az* (H 67.18) (H 67.42) 'he will marry' (take to wife)  
*i-iḥ-ḥa-az* (G 12.8, 11) 'he will marry'  
*a-la-ak-(mi)* (H 49.23) 'I shall go'  
*i-il-la-ak* (H 50.12) 'he will go'  
*i-la-ak* (H 73.31) (CS 8.6) 'he will go'  
*(manūme) i-il-la-ku* (G 15.34) 'he will go'

I<sub>1</sub> Present (*ikašad* form). Primæ *u*. Singular

- ú-ša-ab* (H 71.34) 'she shall dwell'  
*(ša) ú-ul-la-du<sub>4</sub>* (H 7.11) 'I will beget'  
*(lu) ú-ul-la-du<sub>4</sub>* (H 7.14) 'she will give birth'  
*ú-la-ad* (H 67.17) (H 67.40) (H 9.15) 'she will give birth'<sup>199</sup>  
*ú-ul-la-ad* (H 80.19, 22) (G 12.7 and passim) 'she will give birth'

I<sub>1</sub> Present (*ikašad* form). Primæ  $\aleph_{4-5}$ 

No examples.

I<sub>1</sub> Present (*ikašad* form). Primæ  $\aleph_1$ . Plural

- i-il-la-ku* (G 5.36) 'they shall go'  
*i-il-la-ku<sub>8</sub>* (CS 18.20) 'they shall go'

I<sub>1</sub> Present (*ikašad* form). Primæ *u*. Plural

- ú-ul-la-du* (H 96.15) 'they shall give birth'

I<sub>1</sub> Present (*ikašid* form). Primæ  $\aleph_{1-2-3}$ . Singular

- i-ir-ri-šu-uš* (H 94.6) 'he will demand him'

<sup>199</sup> Root of verb uncertain and context not clear. The *ta*-syllable reduplication is possible; cf. Ungnad, *UBAG*, p. 47, § 33 d. The *ki* instead of the usual *ka* is difficult.

<sup>200</sup> For *ú-la-ad* (H 9.15), cf. note 144.

*i-ir-ri-iš* (*G* 15. 26) 'he will cultivate' <sup>200</sup>

*i-ši-id* (*CT* II 21. 11, 14) 'they shall harvest' <sup>145</sup>

I<sub>1</sub> Present (*ikašid* form). Primae *N*<sub>4-5</sub>

*e-ki-im* (*G* 2. 33) 'he shall take away' <sup>201</sup>

*i-ik-ki-im* (*G* 3. 22) 'he shall take away'

*e-zi-ib* (*H* 40. 16) 'I will leave'

*i-iz-zi-ib* (*H* 57. 14) 'he will leave'

*e-zi-ib* (*H* 82. 29) 'he will leave' <sup>201</sup>

*i-zi-ib* (*CS* 10. 8) 'he will leave'

I<sub>1</sub> Present (*ikašid* form). Plural. Primae Infirmæ

No examples found.

I<sub>1</sub> Present (*ikašud* form). Primæ. Infirmæ

*e-ir-ru-um-(mi)* (*S* 15, 18) 'let him encroach'

*e-ir-ru-ub* (*S* 20) 'let him encroach'

I<sub>1</sub> Preterite (*ikšud* form). Primæ Infirmæ

*id-du-ra* (*H* 43. 22) 'she feared'

(*kimē*) *id-du-ra* (*H* 43. 37) 'she feared'

*id-du-ra* (*H* 52. 26) 'he feared' <sup>183</sup>

*id-du-ur* (*G* 28. 31) 'he feared'

*id-du<sub>4</sub>-ur* (*G* 35. 29) 'he feared'

(*kimē*) *id-du-ru* (*H* 43. 37) 'she feared'

*i-mu-ur* (*H* 31. 13) 'he saw'

*a-ku-ul-(mi)* (*G* 35. 24) 'I used'

I<sub>1</sub> Preterite (*ikšid* form). Primæ Infirmæ. Singular

(*ša*) *ú-bi-la* (*G* 43. 9) 'he brought' <sup>202</sup>

(*ša*) *u-li-du<sub>4</sub>* (*G* 12. 14) 'she gave birth'

<sup>200</sup> Tablet in fragmentary condition. Context is uncertain.

<sup>201</sup> Cf. p. 80 for *e* instead of *i*.

<sup>202</sup> The verb *wabālu* shows a marked preference for the energetic. For the Hammurabi Code, cf. Ungnad, *ZA*, vol. 17, p. 363. For the Assyrian Law-book, cf. Lewy, *VAG*, p. 54.

I<sub>1</sub> Preterite (*ikšid* form). Primae Infirmae. Plural*li-bi-lu-ni* (*H* 104.14, 22) 'let them bring'<sup>195</sup>*li-bi-lu-mi* (*H* 106.16) 'let them bring'<sup>195</sup>*ú-bi-lu-ú* (*H* 105.16) 'they brought'*ú-ri-du* (*H* 105.7) 'they obeyed'I<sub>1</sub> Permansive. Singular*(manūme) aš-bu* (*H* 28.15) 'is present'<sup>203</sup>*(ša) aš-bu* (*H* 37.4) 'she is charged'*(ašar) aš-bu* (*H* 71.5) 'he dwelt'*(ša) aš-bu* (*H* 96.17) 'is present'<sup>203</sup>*aš-bu* (*H* 73.29) 'she shall dwell'<sup>178</sup>*a-ši-im-(mi)* (*CS* 19.15) 'he dwells'<sup>204</sup>*a-ši-ib* (*N* 68.18) 'is present'<sup>203</sup>*a-ši-ib* (*CS* 10.6) 'shall dwell'*aš-ba-at* (*H* 71.10) 'she shall dwell'*aš-bá-ku-(mi)* (*G* 54.16) 'I am present'<sup>203</sup>*a-pil-(mi)* (*H* 5.12) 'paid off'<sup>205</sup>*a-pí-il* (*CS* 12.9) 'he is paid off'*ap-la-ku-(mi)* (*H* 14.12) (*H* 25.10) 'I am paid'*ap-la-ku-(mi)* (*H* 8.4) 'I am paid'<sup>206</sup>*a-pil-šu-(mi)* (*H* 5.9) 'he is paid'*wa-al-du* (*G* 52.7) 'she was born'I<sub>1</sub> Permansive. Plural*aš-bu* (*H* 20.10) 'they are charged'*aš-bu* (*H* 105.24) 'they are present'*aš-bu-(mi)* (*CS* 19.7) 'they remained'

<sup>203</sup> E.g. can be reached by legal procedure; cf. Gadd *G*, p. 101, note to line 17; also Koschaker, *NKKA*, p. 121.

<sup>204</sup> For the change *bm* to *mm*, cf. p. 74.

<sup>205</sup> Careless use of third for first person. For correct use, cf. *ap-la-ku-(mi)* (*H* 14.12) (*H* 25.10) 'I am paid'.

<sup>206</sup> Text has *ap-la-ku-nu* but the *nu* is surely an error for *(mi)*.

<sup>207</sup> Use of suffix for the third person permansive is very unidiomatic and shows that the scribe of that tablet was writing in a language still foreign to him. Cf. in same tablet, line 12, *a-pil-(mi)* and note 205.

*aš-bu-ú* (CS 9.9) 'they are charged'

*al-ku* (G 29.42) 'they shall go'<sup>208</sup>

I<sub>1</sub> Imperative. Primae *u*

*bi-la-lam-(mi)* (G 28.9) 'bring'<sup>209</sup>

<sup>208</sup> Tablet deals with the following case: N and Z both claim the same fields. Both swear that they are entitled to it, but neither has proof through witnesses or written documents. Starting with l. 39 the transliteration in Gadd, *G*, 29, reads as follows:

- 1.39 *ú daianeMEŠ mzi-mi ù mna-na*  
 40 *a-na eqlatiMEŠ za-zi-iš aš-ru-šu-nu-ti*  
 41 *eqlatiMEŠ i-zu-uz-zu-(ma)*  
 42 *ù a-na nari ħa-ra-an al-qu*  
 43 *ša ik-kal-lu-u iš-tu eqlatiMEŠ*  
 44 *ša-aš-šum(-ma) e-pú-šu-uš*

The trans, *ibid.*, reads:

- 39, 40 'So the judges settled Zimi and Nan[ai] on the lands apart;  
 41 they divided the lands in two  
 42 and took the way to the stream  
 43 which was held back from the lands  
 44 *ša-aš-šum(-ma) e-pú-šu-uš*

This, of course, makes no sense whatever; cf. *ibid.*, p. 108, note on l. 42 ff. The transliteration starting with line 40 is to be corrected as follows:

- 40 *a-na eqlātiMEŠ za-zi ištapa-ru-šu-nu-ti*  
 41 *eqlātiMEŠ i-zu-uz-zu-(ma)*  
 42 *ù a-na nar ħur-ša-an al-ku*  
 43 *ša ik-kál-lu-ú iš-tu eqlātiMEŠ*  
 44 *ša-aš-šum(-ma) e-pú-šu-uš*

a) The scribe omitted one horizontal wedge.

The translation will then read thus:

- 39, 40 Then the judges sent Z and N to divide the fields;  
 41 and they shall divide the fields  
 42 and go to the river Huršana<sup>a</sup>) (e.g. to an ordeal)  
 43 He who refuses<sup>b</sup>) (lit., holds himself back)  
 44 shall forfeit<sup>c</sup>) his share'

a) For the water ordeal involving the river Huršan, cf. CS, p. 55 ff.

b)  $\sqrt{\text{kal} \bar{n}}$ , cf. Delitzsch, *HWB*, p. 328. *ik-kál-lu-ú* is a IV<sub>1</sub> form with reflexive meaning.

c) For *šaššumma epšū* with meaning to forfeit, cf. CS, p. 54, where the expression is explained as Semitic; and Koschaker, *NKRA*, p. 15, note d), where it is explained as "subaräisch".

<sup>209</sup> For *bi-lam-(mi)*.

I<sub>1</sub> Imperative. Prima  $\aleph_2$ 

*a-lík-(mi)* (*H* 46.14) 'go'  
*al-ka<sub>4</sub>-am-(mi)* (*H* 49.20) 'go'

I<sub>1</sub> Infinitive. Prima  $\aleph_{1-2-3}$ 

(*ana*) *a-ka<sub>4</sub>-li* (*G* 58.7) (for) 'eating'  
 (*ana*) *a-la-ki* (*H* 49.28) (for) 'going'  
 (*ana*) *e-ši-di* (*CT* II 21.6) (for) 'harvesting'

I<sub>2</sub> Present. Primae InfirmæPrimæ  $\aleph_1$ . Singular.

*i-ta-ḥa-az-zu* (*CS* 5.11) 'he shall take her' (to wife)<sup>210</sup>

I<sub>2</sub> Preterite. Primae InfirmæPrimæ  $\aleph_{1-2}$ . Singular

*a-ta-ḥa-az* (*G* 33.4) 'I took' (to wife)  
*ta-at-ta-la-ak* (*H* 49.6) 'she went'<sup>211</sup>

Primæ  $\aleph_{1-2-3}$ . Plural

*i-ta-am-ru* (*N* 89.19) 'they saw'  
*ni-ta-mar-šu-nu-ti* (*H* 43.19) 'we saw them'  
*i-te-ir-šu* (*H* 43.18) (*H* 46.10) 'they requested'  
*ni-ta-la-ak-(mi)* (*H* 49.17) 'we went'

Primæ  $\mu$ 

*it-ta-ab-la-(mi)* (*H* 53.14) 'he brought'  
*i-ta-bal* (*G* 40.18) (*G* 41.23) 'he brought'  
*it-ta-li-id* (*H* 28.29) 'she gave birth'

Primæ  $\aleph_{4-5}$ 

*i-te-zi-ib* (*H* 1.6) 'he left'

II<sub>1</sub> Preterite

*u-pa-la* (*H* 51-5) 'he paid up'

<sup>210</sup> For \**i-ta-ḥa-az šu*. For change *zš* to *zz*, cf. p. 74. For use of masculine pronoun with feminine meaning, cf. note 140.

<sup>211</sup> Cf. p. 77, "Inflection".

II<sub>1</sub> Permansive

*um-mu-ud* (*G* 10. 20)<sup>213</sup>

III<sub>1</sub> Present. Primae **Œ<sub>1</sub>**

*ú-ša-aḫ-az-zu* (*H* 57. 5) 'he shall make him take' (a wife)

III<sub>1</sub> Present. Primae **u**

*tu-še-bi-al-šu-nu-ti* (*H* 105. 10) 'you shall bring them'

III<sub>1</sub> Preterite. Primae **Œ<sub>4-5</sub>**

*ú-še-ri-iḫ-šu* (*CS* 8. 4) 'he made him enter'

III<sub>1</sub> Imperative. Primae **u**

*šu-bi-la* (*H* 102. 12) 'bring' (singular)

*šu-bi-la-aš-šu* (*H* 103. 13) 'bring (singular) him'

*šu-bi-il-šu-nu-ti* (*H* 105. 10) 'bring (singular) them'

*šu-bi-la-ni-iš-šu* (*H* 103. 7) 'bring him'

III<sub>2</sub> Present. Primae Infirmae

No examples found.

III<sub>2</sub> Preterite. Primae **Œ<sub>4-5</sub>**. Singular and Plural

*uš-te-ri-iḫ* (*H* 40. 10) 'he made enter'

*ul-te-ri-bu-(ma)* (*CS* 20. 3, 14, 30, 65) 'they placed' (caused to enter)

*ul-te-ri-bu-(ma)* (*CS* 20. 18) 'they placed'

*ul-te-bi-ir-šu* (*CS* 15. 9) 'he carried it off'

IV<sub>1</sub> Present. Primae **Œ<sub>4</sub>**

*in-ni-mi-du<sub>4</sub>* (*CS* 11. 24) 'they shall stand by'<sup>214</sup>

IV<sub>1</sub> Permansive. Primae **Œ<sub>4</sub>**

*ni-en-mu-ud* (*G* 34. 8, 13, 11) 'extends'<sup>215</sup>

<sup>213</sup> For meaning, cf. Gadd *G*, p. 95 and note on line 20 on p. 96.

<sup>214</sup> Cf. *CS*, p. 48 and note to line 24.

<sup>215</sup> Cf. Gadd *G*, p. 113 and note to line 8.

IV<sub>2</sub> Present. Primae  $\aleph_4$ *it-la-ta-aq-qu* (*H* 27. 6) 'they shall go' <sup>212</sup>IV<sub>2</sub> Preterite. Primae  $\aleph_4$ *it-ti-ib-bi-ir-(mi)* (*CS* 15. 9) 'it was transported'23. *epēšu* <sup>216</sup>I<sub>1</sub> Present. Third person. Singular*i-pu-uš* (*H* 61. 9) (*H* 67. 31)*e-ip-pu-uš* (*G* 51. 9) <sup>201</sup>*e-pu-uš* (*H* 92. 16) <sup>201</sup> (*G* 6. 13) <sup>218</sup>*i-ip-pu-[uš]* (*G* 15. 14) <sup>217</sup>*i-ip-pu-uš* (*H* 103. 8)*e-pu-šu-uš* (*G* 29. 44) <sup>208, 218, 201</sup>*i-ip-pu-uš* (*G* 51. 24) <sup>218, 178</sup>

## First person

*e-pu-uš* (*H* 6. 12) (*H* 6. 14)

## Third person. Plural

*i-ip-pu-šu* (*G* 5. 27) <sup>218</sup>

<sup>212</sup> This is a IV<sub>2</sub> form of the present of  $\sqrt{etēqu}$  (ḫṇṇ); for the expected \*ittetequ, cf. note 266.

<sup>216</sup> Because of its numerous orthographic variants, a special list of its forms is here given.

<sup>218</sup> For meaning of *šaššumma epēšu* (Gadd's supplying *šaššumma* in the broken text (5. 27) is undoubtedly correct), cf. last paragraph of note 208.

<sup>217</sup> In addition to *ḫawumma epēšu* (*TCL* 12. 22) and *šu-a-du-u-um-(ma) i-ip-pu-[uš]* (*G* 15. 14), already mentioned by Koschaker, *NKRA*, p. 15, note *d*, additional phrases containing the Hurrian *um-ma* element and uncertain in meaning are as follows:

*a-na za-šu-um-ma ipušuš* (*H* 97. 7)

*a-na a-ma-ar-wu-um-ma ipušuš* (*H* 97. 8)

*a-na za-ḫu-um-ma ipušuš* (*H* 97. 9)

*ka<sub>4</sub>-sú-ma i-tc-pu-uš* (*H* 43. 17) (*H* 43. 6)

The first 3 have something to do with brick moulding. The fourth, judging from the context, seems to mean 'to take a walk'. The last, again judging by the context, has the meaning 'to strike a blow'.

I<sub>1</sub> Preterite. Third person. Singular

(*kimē*) *i-pu-šu* (*H* 47. 5)  
*i-ip-pu-ša-an-ni-(ma)* (*H* 26. 11)  
 (*ša*) *i-pu-šu* (*H* 65. 2)  
*i-pu-sú* (*H* 61. 3)<sup>219</sup>  
*li-pu-šu* (*H* 103. 16)<sup>195</sup>  
*i-pu-us-sú-(ma)* (*N* 2. 4) (*N* 7. 4)  
*i-pu-us-sú* (*N* 4. 3)<sup>220</sup>  
*e-pu-us-sú-(ma)* (*N* 32. 4)<sup>201</sup>  
*i-pu-uš* (*G* 11. 4) (*G* 34. 3)  
*e-pu-ša-an-ni-(ma)* (*G* 29. 4)<sup>201</sup>  
*i-pu-ši* (*H* 82. 2)<sup>221</sup>

## First person

No examples found.

I<sub>1</sub> Preterite. Third person. Plural

*i-pu-šu* (*H* 105. 17) (*N* 37. 5)  
*i-pu-šu-uš* (*N* 3. 4) (*N* 19. 14) (*N* 52. 6)  
*i-pu-šu-šu-(ma)* (*N* 38. 6) (*N* 39. 3)

## First person

*ni-ip-pu-uš* (*TCL* 12. 23)

I<sub>1</sub> Permansive

*e-pi-iš-(ma)* (*H* 1. 17)<sup>222</sup>

I<sub>1</sub> Imperative

*e-pu-uš-(mi)* (*CS* 16. 34)

I<sub>2</sub> Present

No examples found.

I<sub>2</sub> Preterite. Third person. Singular

*i-te-pu-uš* (*H* 7. 17) (*H* 58. 4) (*H* 59. 4)  
*i-te-ip-ša-an-ni* (*H* 59-7)

<sup>219</sup> For change of *šš* to *ss* and then dropping the gemination, cf. pp. 74 and 65.

<sup>220</sup> For change of *šš* to *ss*, cf. p. 74.

<sup>221</sup> 'He made her'. For correct use of suffix, cf. note 129.

<sup>222</sup> Meaning uncertain. Lines 12-14 are fragmentary.

*e-te-pu-uš-(mi)* (*H* 26. 7)<sup>201</sup>

*i-te-pu-uš* (*H* 43. 6, 14, 17)<sup>217</sup>

*i-ti-pu-uš* (*N* 89. 4)<sup>223</sup>

*i-te-ip-šu-uš* (*H* 94. 5)

First person

*e-te-pu-uš* (*H* 72. 47)

*e-te-pu-uš-(mi)* (*G* 5. 6)

*i-te-pu-uš* (*H* 43. 4)<sup>217, 194</sup>

I<sub>2</sub> Preterite. Plural

*i-te-ip-šu-šu-nu* (*H* 62. 5)

*i-te-ip-šu-šu-(ma)* (*N* 67. 6) (*N* 71. 6)

*i-te-ip-šu* (*H* 48. 32) (*N* 83. 5)

*i-te-ip-šu-un-ni-(ma)* (*G* 29. 8)

#### 24. MEDIAE INFIRMAE

##### *Mediae Laryngalis*

I<sub>1</sub> Present

*i-ra-am* (*H* 73. 39) 'she will prefer'

I<sub>1</sub> Preterite

(ša) *i-ri-mu* (*CS* 20. 71) 'he loved'

*i-ri-iq-qu* (*H* 105. 18) 'they went far away'

I<sub>1</sub> Permansive. Plural

*ni-ru-u* (*H* 15. 16) 'pierced'

I<sub>2</sub> Preterite. Plural

*iš-ta-lu-uš* (*H* 44. 10) (*G* 28. 7) (*H* 53. 36) 'they asked him'

*iš-ta-al-šu-nu-ti* (*TCL* 12. 14) 'they asked them'

*il-ta-lu-uš* (*G* 29. 31)' 'they asked him'

I<sub>3</sub>

*i-ta-na-a-a-lu* (*H* 80. 32) 'she has lain with'

<sup>223</sup> For writing of *ti* instead of the customary *te*, cf. p. 69.

<sup>224</sup> For change *št* to *lt*, cf. p. 73.

II<sub>1</sub> Present

*u-ma-ar* (*H* 67.23) 'he shall send away'

III<sub>1</sub> Preterite

*uš-pí-i-lu* (*CS* 9.4) 'they exchanged'

III<sub>2</sub> Preterite

*uš-te-pí-il-(mi)* (*CS* 17.6) 'I exchanged'

*uš-te-pí-i-lu* (*G* 21.4) 'they exchanged'

*Media i*I<sub>1</sub> Preterite

*i-ši-im-mi* (*H* 70.4) 'he willed'

(ša) *i-ši-mu* (*H* 71.4) 'he willed'

*i-ši-im* (*H* 72.4) (*H* 73.4) 'he willed'

(ša) *i-ši-im-mu* (*H* 74.6) 'he willed'

(šumma la) *i-ši-mu-ú-(ma)* (*H* 29.25) 'he willed'

*i-ši-mu-(mi)* (*G* 29.35)<sup>225</sup> 'he willed'

*i-ši-im-ma-an-ni* (*CS* 16.47) 'settled upon me'

(kimē) *i-ši-im-(ma)* (*CS* 16.60) 'he settled'

I<sub>2</sub> Preterite

*iš-ti-ma-an-ni-(mi)* (*CS* 16.36) 'he settled upon me'

*Mediae u*I<sub>1</sub> Present. Singular and Plural.

*i-zu-uz-zu* (*H* 72.30) (*H* 71.14) 'they shall divide'

*i-zu-zu* (*H* 71.29) (*H* 65.5) 'they shall divide'

*i-zu-uz-zu-nu* (*H* 72.35) 'they shall divide them'<sup>226</sup>

*ni-iz-zu-uz* (*H* 99.14) 'we shall divide'

<sup>225</sup> The *u*-vowel is due to the presence in a subordinate clause whose introductory *ša* is understood from the context; cf. Ungnad, *ZA*, 1903, p. 359, *Zur Syntax der Gesetze Hammurabis*, "Selbst an einer Stelle, an der nur inhaltlich, nicht formell ein Neben-(Relativ)Satz vorliegt, finden wir dieses -u".

<sup>226</sup> For *\*i-zu-uz-zu-šu-nu*. The unaccented *u* before the suffix is dropped, the form then is *i-zu-uz-šu-nu*. For change *zš* to *zz*, cf. p. 74.

*ta-ka-al-la-šu-nu-(mi)* (*G* 29.20) 'you shall retain them' <sup>227</sup>  
*i-ma-at* (*N* 8.11) (*N* 50.9) (*CS* 6.12) 'he will die'

### I<sub>1</sub> Preterite

(*kiam*) *ni-zu-uz-zu* (*G* 6.3) 'we divided it' <sup>228</sup>  
*i-zu-uz-zu-(ma)* (*G* 29.41) 'they divided'  
*i-du-ku-uš* (*CS* 20.23) 'they killed him'  
*i-du-ku* (*CS* 20.26) 'they killed'

### I<sub>1</sub> Permansive

*mi-it-mi-i* (*H* 53.38) 'is dead'  
*mi-it-mi* (*CS* 15.20) (*CS* 16.46) 'had died'  
*ma-a-ru* (*H* 12.22) (*G* 3.21) (*H* 89.25) <sup>229</sup> (passim)  
*ma-a-a-ru* (*G* 2.32) (*G* 47.24) (*H* 87.24) (passim)  
*ma-a-ia-ru* (*G* 26.22)

### I<sub>1</sub> Infinitive

*zu-zi* (*G* 29.40) <sup>230</sup>

### I<sub>2</sub> Present

No examples.

### I<sub>2</sub> Preterite

*im-tu<sub>4</sub>-ut* (*H* 71.11) 'shall have died'  
*im-tù-ut* (*H* 57.8) (*N* 59.12) (*CS* 3.20) (*CS* 15.10) 'shall have died'

<sup>227</sup> Perhaps from  $\sqrt{kalû}$  instead of  $\sqrt{kul}$ , as here assumed. Cf. Delitzsch, *HWB*, p. 328, for  $\sqrt{kalû}$  with the meaning 'to hold back'. These verbs may have become confused because of similarity in meaning and form. Cf. also note 208 (near end). Cf. also note 244.

<sup>228</sup> For *ni-zu-uz-šu*. Cf. p. 74 for change of *šš* to *zz*.

<sup>229</sup> For meaning 'plowed over', one of the first operations in the cultivation of a field, cf. Koschaker, *NKRA*, p. 133, notes 5-9, and page 134, notes 1-2.

<sup>230</sup> See Gadd, *G*, p. 120. The phrase reads:

l. 15 *ša eqli qa-aq-qu-as-šu ú-qa-al-la-(ma)*

Gadd's translation 'stands surety for the field' makes little sense in the context; cf. Gadd's note, *ibid.* Landsberger in Koschaker, *NKRA*, p. 132, makes this suggestion: that the reading should be *ú-ga<sub>5</sub> al-la-(ma)*; this form is for *úgallam(ma) < ugallaḥ(ma)* from  $\sqrt{galābu}$ ; the meaning is 'he shall harvest the field' (lit. 'he shall cut off its head'). This makes excellent sense. The difficulty is that one would expect the gemination of the *m*, cf. however p. 65.

II<sub>1</sub> Present

- a-ta-ar* (*H* 18.23) (*H* 24.7) (*H* 12.20) (passim) 'he will return'  
*ú-ta-ar-(ma)* (*H* 84.15) (*H* 85.32) 'he shall return'  
*ú-ta-ar-(ma)* (*H* 28.13) 'they shall return'<sup>145</sup>  
*ú-ta-ar-ru* (*H* 4.17) 'he will return'  
*ú-ta-ar* (*H* 3.11) 'I will return'  
*ú-ta-ar-(mi)* (*H* 34.6) (*H* 34.10) (*H* 40.12) (passim) 'I will return'

II<sub>1</sub> Preterite

- ú-ka<sub>4</sub>-al* (*H* 56.22) (*H* 55.11) 'he retained'  
*ú-ka<sub>4</sub>-al* (*H* 56.13) 'she retained'  
*ú-ka-al-(mi)* (*CS* 16.75, 77) 'he retained'  
*ú-ka<sub>4</sub>-al-(mi)* (*H* 14.4) 'I retained'  
*ú-ka<sub>4</sub>-al-lu* (*H* 38.14) 'he retained'  
*ú-ka<sub>4</sub>-al-la-(ma)* (*G* 43.15)<sup>230</sup>

II<sub>2</sub> Preterite

- ut-te-ir-šu-(ma)* (*H* 19.14)<sup>152</sup> 'he returned him'  
*ut-te-ir-šu* (*H* 21.6)<sup>152</sup> 'I returned him'  
*ut-té-ir* (*H* 27.15) 'he returned'  
*ut-te-ir-ra-aš-šu* (*G* 43.5) 'I returned to him'  
*u-ta-na-hu* (*H* 105.22) 'they neglected'

## TERTIAE INFIRMAE

Tertiae  $\bar{u}$  or  $\bar{i}$ I<sub>1</sub> Present

- i-ra-aš-ši* (*H* 12.24) (*H* 16.16) (*H* 18.24) (passim) 'it has'  
*i-ra-aš-šu-ú* (passim)  
*i-bá-aš-ši* (*H* 7.11) (*H* 104.18) (*G* 5.34) 'will be'  
*i-ba-aš-ši* (*TCL* 23.3) 'will be'  
*i-ba-aš-ši-(mi)* (*G* 29.32) 'there will be'  
*i-ba-ak-ki-iš* (*N* 8.11) 'he shall mourn for him'  
*i-ba-ak-ki-šu-(ma)* (*N* 59.22) (*CS* 3.20) 'he shall mourn for him'  
*i-ba-ak-ki-šu* (*G* 9.15) 'he shall mourn for him'  
*i-he-ip-pi-šu-nu-ti* (*H* 7.30)<sup>231</sup>

<sup>231</sup> While the context is clear, the grammatical relations are difficult. The text after stating that A and B have adopted S as a son, adds that he must serve them

- i-ḥe-ip-pi* (*H* 67.39)<sup>232</sup>  
*i-ḥe-ip-pi* (*H* 73.25) 'she shall break'<sup>233</sup>  
*i-ḥi-ip-pu-ú* (*G* 75.11) 'they shall break'<sup>234</sup>  
*i-qáb-bi* (*H* 6.18) 'he will say'  
*a-qa-ab-bi* (*H* 105.13) 'I will say.'  
*i-ša-as-si* (*H* 7.7) (*H* 8.6) (*H* 70.15) 'he will make claim'  
*i-ša-as-si-(ni)* (*H* 8.8) 'he will make claim'  
*i-ša-as-si* (*G* 7.11) (*G* 22.7) (*H* 99.17) 'he will make claim'  
*i-ša-as-si* (*G* 1.10, 15) (*TCL* 7.20) 'they will make claim'  
*i-ša-si* (*H* 15.42) 'he will make claim'  
*i-ša-si* (*CS* 11.29) 'she will make claim'  
*i-ša-is-si* (*TCL* 15.8) 'he will make claim'<sup>235</sup>  
*i-ši-si* (*H* 15.41) 'he will make claim'  
*a-ša-as-si* (*G* 33.10, 19) (*H* 25.20) 'I shall make claim'  
*i-ša-sú-ú* (*CS* 11.17) 'they shall make claim'  
*i-za-ak-ka<sub>4</sub>-(ma)* (*N* 62.16)<sup>236</sup> 'he shall clear'  
*i-re-id-de<sub>4</sub>* (*G* 78.3) 'he shall go'

# I<sub>1</sub> Preterite

- il-wu-ú* (*H* 61.14) 'they measured'  
*iḥ-pi* (*H* 32.11) 'he broke'<sup>234</sup>

while they are alive; that if he does not obey them, if he makes necessary their appearance before the judges three times, then:

1. 27 *ù qí-ir-ba-an-šu ša*
- 28 *mš. mA.*
- 29 *ù saB*
- 30 *i-ḥe-ip-pi-šu-nu-ti*

'the relationship of Š, A and B shall break off. The difficulties are:

- 1) *iḥeippe* is singular when it should be plural,
- 2) *-šu-nu-ti* is plural when it should be singular. Cf. note 207.

<sup>232</sup> Line is in fragmentary condition; context not clear.

<sup>233</sup> *qirbana ḥepū* 'to break off relationship'. Context is clear, though the exact meaning and etymology of *qirbanu* is uncertain, cf. (*H* 67.39).

<sup>234</sup> *duppa ḥepū* 'to break a tablet' is used in these texts for cancellation of contracts, cf. Gadd, *G*, p. 139. That the secondary meaning 'to cancel' is meant in these tablets and not the actual breaking of the tablets is shown by (*G* 10.30) where the text reads (l. 29): *ù dup-pa-tu<sub>4</sub> la-bi-ra-ti* (l. 30) *dup-pu an-nu-ú iḥ-te-pi-šu-nu-ti* 'and as for the former tablets, this tablet cancels them.

<sup>235</sup> Note form and cf. with forms immediately preceding and following; cf. also note 148.

<sup>236</sup> Scribal error for the ubiquitous *uzakka*?

*iq-bi-šu-nu* (*H* 104.9) 'he has spoken them'  
*aq-bi-(mi)* (*G* 27.7) 'I spoke'  
*(šumma la) aq-bu-ú* (*G* 29.16) 'he spoke'<sup>194</sup>

I<sub>1</sub> Permansive

*he-pi* (*CS* 20.23) (*CS* 20.71) 'was destroyed'  
*še-pu-a*<sup>237</sup> (*H* 15.23) 'trampled'  
*(ašar) ha-du-ú* (*H* 17.18) 'he desires'  
*(ša) qa-bu-ú* (*H* 34.7) (*H* 36.11,12) (passim) 'was agreed upon'

I<sub>1</sub> Imperative

*qí-bí-(ma)-(mi)* (*H* 48.12) 'say'  
*qí-bí-(ma)* (*H* 103.9) (*H* 104.5) (*H* 102.2) 'say'  
*qí-bi-(ma)* (*S* 1) 'say'  
*ši-sí-(mi)* (*CS* 16.16) 'lay claim'

I<sub>2</sub> Present

*il-ta-sí* (*N* 28.20) 'he will make claim'  
*ir-ta-aš-ši* (*H* 15.36) 'it will have'  
*ir-ta-ši* (*H* 55.18) (*H* 69.9) (*H* 52.13) 'it will have'  
*ir-tá-ši* (*H* 68.17) 'it will have'  
*ir-ta-šu-ú* (*N* 1.6) (*N* 48.13) (*CS* 1.6) 'they will have'  
*ir-ta-ša* (*N* 40.10) (*N* 49.11) 'it will have'<sup>193</sup>

I<sub>2</sub> Preterite

*im-ta-nu* (*H* 52.17) 'he numbered'<sup>238</sup>  
*im-ta-nu-ú* (*G* 28.18) 'he numbered'<sup>238</sup>  
*il-ta-sí-(mi)* (*CS* 16.9) 'he made claim'<sup>234</sup>  
*iq-ta-bi* (*H* 2.3) (*H* 38.2) (*H* 40.3) (passim) 'he spoke'  
*ta-aq-(ta)-bi* (*G* 61.4) 'you said'<sup>239</sup>  
*aq-ta-bi-(mi)* (*S* 11) (*CS* 16.28) 'I spoke'  
*aq-ta-bi-(ma)-(mi)* (*H* 48.23) 'I spoke'  
*iq-ta-bu* (*H* 43.12) (*H* 53.11) (*H* 53.28) (passim) 'they spoke'  
*iq-ta-bu-ú* (*H* 15.7) (*H* 47.32) (*N* 3.17) (passim) 'they spoke'

<sup>237</sup> Dual.<sup>238</sup> An *ikšud* form of the verba tertiae infirmae. This explains the *u*-vowel of the last syllable; cf. Delitzsch, *AG*, p. 308 ff.; Ungnad, *UBAG*, p. 63 c.<sup>239</sup> Text is fragmentary and context uncertain.

*iq-ta-bu-ú-(ma)* (*G* 27.6) 'they spoke'  
*ni-iq-ta-bi* (*TCL* 12.12) 'we spoke'  
*ni-iq-ta-a-bi* (*H* 49.18) 'we spoke'  
*il-ta-mu-ú* (*H* 89.20) 'they measured' <sup>240</sup>  
*ih-te-pi* (*H* 21.4) 'he broke' <sup>233</sup>  
*ih-te-pi* (*H* 37.20) 'he broke' <sup>234</sup>  
*eh-te-pi-šu-nu-ti* (*TCL* 41.34) <sup>234</sup> 'I broke them'  
*ih-te-pi-šu-nu-ti* (*G* 10.30) <sup>234</sup> 'it cancels them'  
*eh-te-pi* (*G* 33.7) 'I broke' <sup>241</sup>  
*ih-te-pu-ú* (*G* 66.18) <sup>242</sup>

I<sub>3</sub> Preterite

*ni-it-ta-na-si-šu-(mi)* (*H* 49.27) 'we summoned him'

II<sub>1</sub> Present

*ú-ra-ad-dá* (*H* 55.22) (*G* 2.23) (*G* 3.21) (passim) 'he shall add'  
*[ú]-ra-da* (*H* 56.33) 'he shall add'  
*(ú)-ra-ad-di* (*H* 85.31) 'he shall add' <sup>243</sup>  
*ú-ra-ad* (*N* 87.21) 'he shall add' <sup>244</sup>  
*ú-za-ak-ka<sub>4</sub>* (*H* 37.13) (*H* 38.20) 'he shall clear'  
*ú-za-ak-kà* (*H* 33.24) 'he shall clear'  
*ú-za-ak* (*H* 12.25) (*H* 18.25) (*N* 53.13) 'he shall clear' <sup>244</sup>  
*ú-za-ka<sub>4</sub>* (*CS* 17.12) 'he shall clear'  
*ú-za-ak-ka<sub>4</sub>-(ma)* (*H* 69.10) 'he shall clear'  
*ú-za-ak-ka<sub>4</sub>-šu-(ma)* (*H* 83.6) 'he shall clear her' <sup>240</sup>  
*ú-za-ak-kim-(ma)* (*G* 1.11) 'I shall clear' <sup>245</sup>

<sup>240</sup> This verb is written in these texts as *lamū* or *lawū*, cf. *il-wu-u* (*H* 61.14) 'they measured'.

<sup>241</sup> Gadd's reading, *G*, p. 111, should be corrected to *eh-te-pi*. The entire tablet is written in the first person. Cf. *a-na-an-din* (l. 12) *a-ša-as-si* (l. 19). This would change the translation 'is broken', Gadd, *ibid.*, to 'I broke'.

<sup>242</sup> Text broken; meaning uncertain.

<sup>243</sup> *u* is omitted by scribe. Note the unusual *i* ending and cf. the same phenomenon in the Hammurabi Code, Ungnad, *Zur Syntax der Gesetze Hammurabis*, ZA, 1903, p. 364.

<sup>244</sup> Note the complete dropping of the final vowel. Cf. Delitzsch, *AG*, p. 102 ff., and his interesting comment on comparison of such forms with the Hebrew יָכַח. What is more probable than that such forms would in time lead the root to be treated as a *mediae infirmae*? Cf. note 227.

<sup>245</sup> A 'singular' form for *uzaka*.

- ú-za-ak-ka<sub>4</sub>* (*G* 31.19) 'I shall clear'  
*ú-za-ka<sub>4</sub>-(ma)* (*N* 34.11) (*G* 30.10) 'I shall clear'  
*ú-za-ak-ka<sub>4</sub>-aš-šu* (*G* 52.17) 'I shall clear her'<sup>140</sup>  
*ú-za-ak-ka<sub>4</sub>* (*H* 53.19) 'they shall clear'<sup>145</sup>  
*ú-za-ak-ka<sub>4</sub>-(ma)* (*N* 11.12) 'they shall clear'<sup>145</sup>  
*ú-za-ak-ku-ú* (*H* 16.18) (*N* 3.13) 'they shall clear'  
*ú-za-ak-ku* (*N* 15.14) (*N* 99.14) 'they shall clear'  
*ú-za-ak-ku-(ma)* (*N* 31.15) (*N* 38.16) (*H* 68.19) (passim) 'they shall clear'  
*ú-za-ak-ku<sub>8</sub>-(ma)* (*N* 19.19) 'they shall clear'  
*ú-za-ku-(ma)* (*N* 25.13) 'they shall clear'  
*ú-za-ak-ku-šu-nu* (*H* 15.37) 'they shall clear them'

II<sub>1</sub> Preterite

- u-ri-ib-bi-šu* (*G* 42.4) 'she brought her up'<sup>140</sup>  
*(kimē) u-ri-ib-bu-uš* (*G* 42.10) 'she brought her up'<sup>140</sup>

II<sub>1</sub> Permansive

No examples found.

II<sub>1</sub> Imperative

- zu-uk-ka-ma-am-(mi)* (*CS* 16.80) 'make clear'<sup>237</sup>

III<sub>1</sub> Present

No examples found.

III<sub>1</sub> Preterite

- ú-še-el-wi-(mi)* (*N* 23.14) 'I measured'<sup>240, 243</sup>  
*ú-še-el-wu-ú* (*N* 23.32) 'they measured'<sup>240</sup>  
*u-še-el-mu-ú* (*N* 96.25) 'they measured'<sup>240</sup>

III<sub>1</sub> Infinitive

- (ana) šu-ú-li-i* (*S* 9) 'for measuring'<sup>246</sup>

IV<sub>2</sub> Present

- it-tab-ši* (*H* 67.8) 'they will be'  
*it-tab-šu* (*H* 60.9) (*H* 60.13) 'there will be'<sup>247</sup>

<sup>246</sup> *šu-ú-li-i* a III<sub>1</sub> infinitive from *lawū* or *lamū*, cf. note 240. Cf. Speiser, *S*, p. 272, note to line 9.

<sup>247</sup> Used in same sense as *I<sub>1</sub>* form, cf. p. 109.

TERTIAE S<sub>1</sub>I<sub>1</sub> Present

*i-ri-it-tù-ú* (*N* 29.11) 'they shall drive in' <sup>248</sup>

I<sub>1</sub> Permansive

*ma-lu-ú* (*H* 23.7) 'filled' (they are)

*ma-la-ta-(mi)* (*G* 28.16) 'you are full off'

I<sub>2</sub> Preterite

*im-ta-lu-ú* (*II* 81.6) (*H* 82.14) 'they have passed' <sup>249</sup>

*im-ta-la* (*II* 85.12) (*II* 86.12) (*G* 30.17) 'they have passed' <sup>145</sup>

*in-ta-lu* (*G* 48.17) 'they have passed'

II<sub>1</sub> Present

*ú-ma-al-la* (*H* 7.9) (*H* 8.10) (*II* 40.19) (passim) 'he shall pay in full'

*ú-ma-al-lu-ú* (*N* 67.20) 'they shall pay in full'

*ú-ma-al-lu* (*N* 38.24) (*N* 40.23) 'they shall pay in full'

IV<sub>1</sub> Present

(ša) *ik-kal-lu-ú* (*G* 29.43) <sup>208</sup>

TERTIAE S<sub>4</sub>I<sub>1</sub> Present.

*i-še-im-me* (*H* 7.23) (*H* 73.20) 'he will hear'

I<sub>2</sub> Preterite

*iš-te-mu-ú* (*H* 49.26) (*H* 16.39) (*TCL* 12.25) 'they heard'

III<sub>2</sub>

*ul-te-ši-i-mi* (*H* 49.26) 'he announced'

## 26. LIQŪ 'TO TAKE'

I<sub>1</sub> Present. Third person. Singular

*i-lī-iq-qī* (*H* 27.9) (*H* 57.13) (*H* 71.6) (passim)

<sup>248</sup> Used with *išikkata* in the sense 'to drive in a nail'; a very cruel punishment meted out to him who breaks the contract. In the texts *VS* 108.9 and 109.17 the verb *maḥāṣu* is used. Cf. Koschaker, *NKRA*, p. 11 and note 4.

<sup>249</sup> Lit.: 'the years have become full'.

*i-li-qì* (*H* 17. 17, 21, 25) (passim)

*i-liq-qì* (*G* 2. 32)

*i-li-qì-(ma)* (*H* 26. 14)

*i-li-qú-ú* (*H* 83. 33)<sup>178</sup>

I<sub>1</sub> Present. First person. Singular

*e-liq-qì* (*G* 30. 22)

*e-liq-qì-(mi)* (*G* 32. 18)

I<sub>1</sub> Present. Third person. Plural

*i-liq-qú-ú* (*H* 73. 17)

*i-li-iq-qú-ú* (*G* 26. 21, 23)

*il-qì* (*H* 85. 55)<sup>250, 145</sup>

I<sub>1</sub> Preterite. Third person. Singular

*il-qì* (*H* 72. 23) (*H* 75. 7) (*H* 75. 10)

(ša) *il-qú-ú* (*TCL* 2. 5)

*il-qì* (*H* 85. 22)<sup>145</sup>

*li-il-qì-(mi)* (*H* 46. 20)<sup>195</sup>

*i-li-qú-ú* (*H* 58. 7)

I<sub>1</sub> Preterite. First person. Singular

*el-qì-(mi)* (*H* 13. 11) (*H* 25. 9) (*H* 34. 4) (passim)

(ša) *el-qú-ú* (*H* 29. 4)

*el-qì-šu-nu-li-(ma)* (*CS* 18. 13) 'I took them'

I<sub>1</sub> Preterite. Third person. Plural

*il-qú-ú* (*H* 96. 9) (*G* 56. 22)

I<sub>1</sub> Permansive

*li-qì* (*H* 89. 40)

*li-qì-(mi)* (*N* 65. 7)<sup>145</sup>

I<sub>1</sub> Imperative

*li-qì-(mi)* (*H* 46. 19) (*H* 53. 12)

*li-qa-am-(mi)* (*H* 49. 20)<sup>251</sup>

I<sub>1</sub> Infinitive

(ana) *li-qì* (*H* 27. 7)

(ana) *li-qì-e* (*H* 29. 15)

<sup>250</sup> Preterite in form but present in meaning. Cf. note 134.

<sup>251</sup> Energetic of the imperative, cf. Ungnad, *UB.1G*, p. 43b and 44d.

I<sub>2</sub> Preterite. Third person. Singular

- il-te-qì* (*H* 2. 5) (*H* 37. 9, 19) (passim)  
*il-te-qí* (*H* 49. 31)  
*el-te-qì* (*G* 6. 6)<sup>201</sup>  
*il-te-qì-šu* (*H* 101. 5) 'he took her'<sup>140</sup>  
*il-te-qì-šu-nu-ti* (*H* 47. 10) 'he took them'  
*il-te-qì-šu-nu-ti-(mi)* (*H* 47. 29) 'he took them'  
*il-te-qì-šu-nu-ti* (*G* 6. 7) 'they took them'<sup>145</sup>

I<sub>2</sub> Preterite. Third person. Plural

- il-te-qú-ú* (*H* 20. 14) (*G* 15. 9) (*CS* 20. 3, 24) (passim)  
*il-te-qú* (*H* 93. 7)  
*il-te-qú-ni* (*CS* 20. 21)

I<sub>2</sub> Preterite. First person. Singular

- el-te-qì-(mi)* (*H* 3. 6) (*H* 4. 1±) (*H* 6. 4) (passim)  
*el-te-qì* (*G* 30. 6) (*G* 31. 21) (*G* 43. 6) (passim)  
*el-te-qì* (*G* 47. 43)<sup>252</sup>  
*al-te-qì* (*H* 11. 27)

I<sub>2</sub> Preterite. First person. Plural

- ni-il-te-qì-(mi)* (*H* 16. 14) (*N* 3. 17)  
*ni-el-te-qì-(mi)* (*G* 10. 43)  
*(ša) ni-el-te-qú-ú-ni* (*H* 28. 8)  
*ni-il-te-qì* (*G* 50. 18)

## 27. DOUBLY-WEAK VERBS

Primae *n* and Tertiae InfirmaeI<sub>1</sub> Present

- i-na-an-du-uš* (*H* 101. 9) 'they shall deprive her'  
*i-na-aš-ši* (*CT* II 21. 11, 14) 'they shall carry'

<sup>252</sup> Gadd reads *al-te-qì*: *G*, p. 123. The sign, however, bears a closer resemblance to *el*. The reading would then be *el-te-qì*. This is the more usual form for the first person in these texts, although *al-te-qì* is also found, cf. (*H* 11. 27).

<sup>253</sup> Note the Assyrian subjunctive. Cf. note 131. Others examples of the *ni* particle in these texts is *li-bi-lu-ni* (*H* 104. 14, 22) and *i-id-di-nu-ni-iš-šu* (*N* 19. 19).

I<sub>1</sub> Permansive

- na-ši* (*H* 56.31) 'he shall bear'<sup>254</sup>  
*na-a-ši* (*N* 13.20) 'he shall bear'<sup>254</sup>  
*na-a-ši* (*N* 60.11) 'they shall bear'<sup>254</sup>  
*na-ši-i* (*N* 93.15) 'he shall bear'<sup>254</sup>  
(*kīma*) *na-šu-ú* (*H* 47.31) 'he was carrying'  
*na-šu-ú* (*N* 25.17) (*N* 37.15) (*N* 38.19) (passim) 'they shall bear'<sup>254</sup>  
*na-a-šu-ú* (*H* 68.22) 'they shall bear'<sup>254</sup>  
*na-a-šu* (*N* 3.11) (*N* 31.17) 'they shall bear'<sup>254</sup>  
*na-ša-a-ku* (*G* 31.17) 'I shall bear'<sup>254</sup>  
*na-a-du* (*G* 66.15) 'they were thrown away'<sup>255</sup>

I<sub>1</sub> Imperative

- i-ši-(mi)* (*H* 52.22) 'make take oath'<sup>256</sup>  
*i-ši-šu-(mi)* (*H* 43.21) 'make them take oath'<sup>257</sup>  
*i-ši-šu-(mi)* (*H* 47.33) 'make him take oath'

I<sub>1</sub> Infinitive

- (*ana*) *na-še-e* (*CT* II 21.7) 'for carrying'  
(*ana*) *na-še-e* (*G* 28.29) 'for taking oath'

I<sub>2</sub> Preterite

- it-ta-ši-iš* (*H* 47.35) 'he made him swear'  
*it-ta-ši-šu-(ma)* (*CS* 15.8) 'he carried her off'<sup>140</sup>  
*it-ta-du* (*G* 28.34) 'they condemned'<sup>258</sup>  
*it-ta-du-uš* (*CS* 15.28) (*H* 19.7) (*H* 43.26) (passim) 'they condemned him'  
*it-ta-du-uš* (*CS* 16.67) 'they condemned her'  
*it-ta-dú-uš* (*H* 52.30, 33) 'they condemned him'  
[*it*]-*ta-du-ni-in-ni-(mi)* (*H* 5.5) 'they condemned us'

<sup>254</sup> The formula *ilqū našū* has the meaning in these texts 'to bear the king's service'. Cf. Koschaker, *NKRA*, p. 60. The nature of this service is not certain.

<sup>255</sup> Text is fragmentary; meaning is uncertain.

<sup>256</sup> Phrase *ilim našū* 'to take oath'. Cf. Gadd, *G*, p. 107, note to l. 29.

<sup>257</sup> Note careless use of singular suffix with plural meaning.

<sup>258</sup> *nadū* (lit. 'to throw') is used in the technical sense 'to condemn', 'to sentence' to the payment of a fine. Cf. Gadd, *G*, p. 105, note to l. 16, and literature quoted, *ibid.* The subject is always 'the judges'; though in some texts this subject is to be understood. Cf. (*H* 5.5) and (*H* 19.7).

Primae  $\mathfrak{u}$  and  $\mathfrak{i}$  and Tertiae InfirmaeI<sub>1</sub> Present

- ni-de<sub>4</sub>-(mi)* (*H* 48.17) 'we will know'  
*ti-i-de* (*S* 23) 'do you take notice'  
*ú-uš-ši* (*H* 57.14) (*H* 73.44) (*H* 103.17) 'he shall go out'  
*ú-uš-ši* (*H* 67.42) 'she shall go out'  
*ú-uš-šú-ú* (*CS* 5.15) (*G* 12.13) 'they shall go out'

I<sub>2</sub> Preterite

- it-ta-šú-(ma)* (*H* 49.14) 'she went out'

III<sub>1</sub> Present

- u-še-iš-ši* (*H* 40.14) 'I shall free myself'<sup>259</sup>  
*u-še-iš-ši-sú-nu* (*H* 73.30) 'they shall make them go out'  
*uš-te-ši-(mi)* (*H* 53.24) 'I made go out' (divorced)

Primae  $\aleph_4$  and Tertiae InfirmaeI<sub>1</sub> Present

- i-il-li* (*H* 32.14) 'will come up'<sup>260</sup>  
*i-il-li* (*N* 82.6) 'he shall forfeit'<sup>261</sup>

I<sub>2</sub> Preterite

- i-te-e-li* (*H* 49.3) 'he went up'  
*i-te-lu* (*H* 27.14) 'he went up'<sup>178</sup>  
*i-te-lu-(ma)* (*H* 43.3) (*H* 47.4) (*H* 52.3) (passim) 'they went up'  
*i-te-lu-ú-(ma)* (*G* 28.14) 'they went up'<sup>262</sup>

III<sub>1</sub> Present

- (*šumma*) *ú-še-cl-lu-šu-nu-ti* (*H* 27.4) (*H* 27.26) 'he will make them go up'

<sup>259</sup> Lit. 'I shall cause myself to go out'.

<sup>260</sup> *šumma dup-pu i-il-li* 'if a tablet will appear' (lit. 'come up').

<sup>261</sup> The text reads: *i-na biti-šu i-il-li* and is to be translated 'he shall forfeit his properties' (lit. 'he shall go up, out of his houses'). Koschaker, *NKRA*, p. 15, note *d*, adds that this is the Akkadian equivalent of *šaššumma ep̄šu*. Cf. note 208, at end.

<sup>262</sup> The sign *te* is misread by Gadd, *G*, p. 105, as *ta*.

III<sub>1</sub> Imperative

*šu-la-aš-šu-um-(mi)* (CS 16. 19)<sup>263</sup>

III<sub>2</sub> Preterite

*uš-te-lu-uš* (CS 16. 32) 'they dismissed him'<sup>264</sup>

*uš-te-la-an-ni-(ma)* (CS 16. 11) 'he removed me'

*ul-te-li* (H 58. 9) 'he forfeited'<sup>265</sup>

IV<sub>2</sub> Preterite

*it-ta-al-im-(ma)* (H 43. 15)<sup>266</sup> 'she came up'

*Primae* S<sub>1</sub> and *Tertiae Infirmae*I<sub>2</sub> Present

*il-te-'e-(ma)* (H 17. 16) 'he will prevail'<sup>267</sup>

I<sub>2</sub> Preterite

*il-te-e* (G 35. 31) 'he prevailed'

*il-te-i-(ma)* (H 45. 6) (H 50. 6) 'he prevailed'

*il-te-e-(ma)* (H 47. 30) (H 49. 30) (H 53. 40) (passim) 'he prevailed'

*il-te-(ma)* (H 48. 33) (G 37. 6) 'he prevailed'

*Mediae* S<sub>4</sub> and *Tertiae Infirmae*I<sub>1</sub> Preterite

*i-ri-u-(ma)* (CS 18. 16) 'they pastured'<sup>122</sup>

II<sub>1</sub>

*ú-ba-a-aš* (N 8. 12) 'he shall search for him'.

<sup>263</sup> Use of energetic with suffix expressing direct object (cf. p. 84) is here due to the verb *alū*. Cf. Ungnad, *UBAG*, p. 43b.

<sup>264</sup> L. 32 *i-na di-na-ti* 33 *uš-te-lu-uš* 'from the suit they dismissed him'; lit. 'they made him go up'.

<sup>265</sup> *šepa-šu ul-te-li*, 'his share he caused to go up', e.g. 'he gave up'.

<sup>266</sup> *it-ta-al-im-(ma)* IV<sub>2</sub> for the expected \**ittelimma*.

<sup>267</sup> The verb *le'u* (𒌦𒍪) is used with *ina dināti* 'to win the suit' (to prevail). For writing of the spiritus lenis sign, cf. p. 70.

## A NEW SYRIAC FRAGMENT DEALING WITH INCIDENTS IN THE SECOND CRUSADE

BY W. R. TAYLOR

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Last year during my term as annual professor in the American School of Oriental Research in Jerusalem I was permitted, through the courtesy of his Lordship, the Bishop of the Jacobite Church, and the kind assistance of the librarians, Abou Hano and Abou Jesu, to spend some time in the library of the Convent of St. Mark for the purpose of examining the manuscripts in the possession of the Convent. The contents of the library seem to have suffered change since Frédéric Macler in 1899 and again in 1901 examined them and published a list of twenty-five of the manuscripts. I could obtain no explanation of the absence from the library of MSS. mentioned by Macler. I was told that the library in Jerusalem was quite inferior to that at Mardin, where the oldest and the best manuscripts were preserved. It seems important that as soon as possible a proper survey of the material in Syrian convents should be attempted in order to guard against the possible disappearance of valuable works.

Among the manuscripts in the Convent in Jerusalem perhaps the choicest is No. 27. It is a Gospel-lectionary for Sundays throughout the year, written in a fine clear hand on excellent parchment. The leaves number 130, measuring 25 x 17.5 cm., and the script is arranged in two columns of 19 lines each to a page. In the colophon it is stated that a certain Mar Simon produced the work in Jerusalem and brought it to a conclusion on Tuesday, the fifteenth of Elul, in the year 1460 of the Greek era in the Convent of St. Simon the Pharisee and St. Mary Magdalene in the days of his Lordship, Ignatius, head of the Convent and Metropolitan of Jerusalem and Palestine.

The preparation of this lectionary had proceeded in the midst of the critical and stirring events of the Second Crusade. Mar Simon therefore extends the length of the colophon in order to relate some of the incidents in Jerusalem during the year 1148-1149 A. D. What he writes in this way provides some material for the history of the Crusades and, so far as I can learn, has never been made accessible to the students of this field.

The relevant section of the colophon comprises about twelve hundred words. It begins by describing the circumstances of the fall of Edessa before the Moslems in 1144 A. D., the Crusade of Conrad III and Louis VII to avenge the loss of the city, and the failure of the attack of these kings against Damascus in 1148.

Our attention is then turned to Jerusalem. With the collapse of the Second Crusade the Christians from Syria came pouring into the city in such numbers that the resources of the convents were insufficient to meet the violent demands of the refugees for food and clothing. In these straits the convents began to look about them for fresh sources of income or supplies. The glory of Ignatius lay in his ability to meet masterfully this difficult and critical situation. For example, he recollected that a place known as Deir Dakreh or Dakarieh had once been the property of the Convent but had been alienated since the Moslem conquest. He therefore asked King Baldwin and his mother, Queen Melisanda, to return it to the Convent. The king consented to restore the title to the Convent on condition that the then owner should be paid its value in money—1000 dinars of gold. In this way, Mar Simon states, the Convent secured possession of the property, and by this account Mar Simon hopes to clear Ignatius of a charge of wrongful confiscation that seemingly was being made against him.

In short, this narrative gives us a very vivid picture of the distress in Jerusalem in 1149 and of the problems that confronted the Church there as a result of the collapse of the Second Crusade. As we already know that the year 1148-1149 was the turning-point in the history of the Crusades, it is interesting to have this fresh material from an eye-witness of some of its events. Also the reference to Deir Dakarieh contributes something to Palestinian topography.

#### TRANSLATION

This copy of a Gospel-Lectionary was completed on Tuesday, the fifteenth of Elul, in the year 1460 of the Greek era (1149 A. D.) in the Convent of St. Simon the Pharisee and St. Mary Magdalene in the Holy City of Jerusalem in the days of his Lordship, Athanasius, the Patriarch of Antioch, and of Johannes, the Metropolitan of Egypt, and of Ignatius, the head of this Convent and the Metropolitan of Jerusalem and of all Palestine. It has been written with great pains and diligence and with much affection for our holy father, his Lordship, Ignatius III, the aforementioned, to be used in this Convent of St. Mary Magdalene which is near the wall of the city.

May God for the love of whom this work was done with care grant to his Lordship a good reward along with all his faithful servants, and prosper his ministry as that of the Holy Apostles, and keep him at the head of his flock for a good measure of years in enduring tranquillity and unbroken peace. May He grant comfort and rest to the souls of those who have died in the faith in His eternal Kingdom through the petitions and prayers of her who was full of holiness, Mary, the Mother of God.

The copyist is a sinful and humble monk from Edessa. In love and faith I ask every Christian brother who sees the poor scribbles of this book to pray for the sinner who wrote it; and to every one who offers prayers for the writer may God grant pardon and peace forever. Amen.

It seems fitting also to record at length some of the things which occurred in our days and especially in those of our venerable father, his Lordship, Ignatius, to whom we referred above, and to write about the good works which he has done in his time, I mean the money which he expended, the buildings which he erected and the gifts which he made to the support of the Convent of St. Simon the Pharisee in order that all who come upon these lines may read this record and perceive the goodness of the man and his diligence and the labors which he undertook on behalf of the Convent and for the performance of deeds of charity and for the ministrations to the comfort of pilgrims and needy ones who came to the Convent seeking food and clothing. We seek also to show clearly that all that he contributed in his time to the resources of the Convent was obtained honorably by him through the payment of money in the presence of reliable witnesses.

In the year 1455 of the Greek reckoning (1144 A. D.) the Turks captured the famous city of Edessa. After putting many Christians to the sword and enslaving others they settled down in the city. Because of these things great sorrow and cruel pain overtook all the Christians. After two years of power the king who captured Edessa, Zeugi, was killed in sleep one night by some Christians.

It happened in this way. During the night the Franks came and climbed the wall of the city stealthily. When the Moslems heard the sound of the trumpets they knew that the Franks had captured the wall and they were terrified. Thereupon they ran to take refuge in the towers and fortifications of the city and sent messengers to the seat of their government to ask for help. Soon a great number of men gathered from every side and the Franks could remain only five days in the city. For when they saw that a great number of Turks had collected they became very alarmed and prepared to run away. When the Christians of the city saw the situation they too were filled with fear of the Moslems and proceeded to get out of the city. As soon as they emerged the Turkish soldiers saw them and quickly surrounded them. The fight that ensued lasted from that Saturday evening until three o'clock of the following Sunday afternoon. In the end the Franks were overcome and decamped. As for the native Christians, since they all were now taken captive, their last condition was worse than their first.

The fall of Edessa was the reason for the advance of the Latin kings with their armies against the Turks, particularly when they heard that after the

capture of Edessa by the Moslems the Christians were prisoners. Filled with zeal for God they left their countries for the cause of Christ and of the Christians to avenge the death of their fellow-Christians and the loss of Edessa and to take those Christian sites which were being polluted by the Turks, particularly the Holy Sepulchre and the other Holy places in Jerusalem.

These Latins were from two great and mighty Kingdoms; the one was a powerful king who sat on the throne of Rome which is superior to all others in the West and who was known as the King of Kings and the other who was subject to the rule of Rome was ruler of the *Allemani*,<sup>1</sup> the most cruel people in all God's creation. The former had 930,000 men and the latter 600,000.

When they reached Constantinople the Greek Emperor and his forces were afraid of them. He cunningly planned to get them out of his territory and treacherously sent them on their way by roads that led to barren and uninhabited regions. For this reason many of them died from hunger and thirst and when the Turks heard of their coming to these parts they attacked them and killed as many as they wished and took captives and slaves until they had enough. Those who were left over went back to their homes suffering keen disappointment and the loss of their gold and silver and their horses.

The kings, however, with their noblemen and some of those who escaped came by sea to Jerusalem. They were sad and depressed and bitter in spirit because of the misfortunes which had befallen them, the defeat by the Turks and the loss of so many of their people. But they were quickly comforted by the King of Jerusalem and his army and by the Patriarch and they agreed together to attack the city of Damascus. On the very day of their arrival there they made a fierce assault on the city and on the following day the Turks were on the point of surrendering the city through fear. But at that moment the kings became divided among themselves. Consequently these Christian armies returned to Jerusalem in disgrace; all the Christians of those regions were discouraged; and the kings themselves went on board ship and sailed away to their countries greatly broken in spirit.

Now in the year in which all these things happened, i. e. in the year 1459 according to the Greek reckoning (1148 A. D.) Jerusalem was filled with no end of poor people and there was want of food and all necessaries. It is very unpleasant to introduce the readers to the condition of the Christians. Many of those who were poor in Jerusalem were dying of hunger and many were also attacking the various convents in search of the means of livelihood. At

<sup>1</sup> The respective positions of Louis VII, King of France, and Conrad III, the Holy Roman Emperor, seem here to be confused.

the same time these convents of ours were not rich enough to satisfy the demands of these poor for the resources of the convents were barely sufficient to meet the needs of the inmates. But the poor were persistent in their demands for help. The defeated Edessans together with their prisoners of war especially had come to Jerusalem because they had no other place of refuge except in our convents which were happy to help them, be it with gold for the purchase of the prisoners, or bread for their wants or clothing for their nakedness.

Our holy father, Ignatius, was gladly meeting their needs, for he had compassion on all the poor whether of our own community or of that of the Franks, and he was sad and troubled because he could not do more. When our Lord saw his goodwill he reminded him that there was a village called *Deir Dakarieh*<sup>2</sup> which before the times of the Moslems had belonged to the Convent but which the Moslems took and which now was in the possession of the Franks as the rulers of the country. Putting his trust in God, his Helper, he went before the King, Sir Bagdwin, the son of Fulk, and his mother, Queen Melisanat, and placed the matter before them. Because they were moved by God and because they had great respect for and trust in Ignatius they gave him much assistance. They ordered the owner of the village to return it to the Convent of St. Mary Magdalene and the King told our father to give money to the owner and to buy it anew and to secure from the owner a deed legally witnessed and sealed. Obeying these instructions Ignatius bought the village again, paying for it the large sum of nearly 1000 dinars of yellow gold and receiving a deed of purchase duly witnessed and sealed with the royal seals.

Because Ignatius was seeking in the love of God to fulfil His commandment to feed the hungry, God provided that the price of the village should be brought to his hand from unexpected sources. Again by the help of God he has begun to erect a castle and a church and around them some houses. We pray God to complete the things which he has set his mind to do as God always and in all things has prospered his plans. May our God bless his diocese abundantly all his life and humble all his enemies. And finally may God in His mercy give rest to the souls of all the faithful who have departed this life through the prayers of Mary, the Mother of God, and of the Holy Saints, forevermore. Amen.

<sup>2</sup> Perhaps the name is *Deir Dakreh*. As the vowels are not indicated, it is difficult to determine the spelling of this word. I have been unable to learn the location of the place. The Convent originally located there may have been named to commemorate Zechariah, the father of John the Baptist.









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## THE CAMPAIGN AT JERASH IN SEPTEMBER AND OCTOBER 1931

By PROFESSOR CLARENCE S. FISHER \*

As the first piece of work for the year, and while we are waiting for arrangements to be completed for the rental of a field outside the South Gate for dumping purposes, we choose the small "island" of debris left between the St. Theodore church and the south colonnade at the Artemis complex. This long narrow strip has always been a tempting piece of ground, and I have wanted to see it fully cleared, so as to complete the plan of this area.

The former expedition found here a fragment of architrave mentioning a bath and also found a door into a small hypocaust. The present excavations have cleared a large structure with all the details of a bath, and found the two remaining parts of the architrave making this inscription complete. Furthermore in a large room on the east end, adjoining the "Atrium" of the bath, we found a mosaic floor with a circular panel repeating the fact of the erection of the bath, thus establishing its character. The architraves in themselves might have been brought here from elsewhere, and simply re-used. The Bath has now been cleared for over half the length of the strip. The floors are being lifted and search made for earlier structures below.

We are at work on a complete corpus of inscriptions of Jerash. Over sixty have been photographed. Squeezes are also being prepared in connection with the photographs. Search will be made throughout the fields and in the village for additional inscribed blocks. All the other records are brought up to date and systematically indexed and filed.

### *September 17. Thursday.*

We began work with thirty men in the area north of St. Theodore. They are building a causeway westward across the strip using the loose stones from the area. The excavations will begin at the eastern end and be carried westward, the railway being removed. At breakfast time we had a visit from Peek

\* The following article is a condensation of a full diary forwarded by Professor Fisher beginning September 1 and continuing as far as October 15. The items of a diary throw much interesting light upon the details of such a campaign, but for lack of space the paper must be limited to the account of the actual archaeological work and its results. Dr. Fisher has had no opportunity to see the article in proof. Like the earlier campaigns (see pages 1 ff.) this work is continuing under the joint auspices of Yale University and the American Schools of Oriental Research.

Pasha, the head of the civil police of Trans-Jordan and in reality the head of the government. After tea Mr. Head left for Amman. It was an excessively hot day.

*September 18. Friday.*

On the highest level a long room is appearing with a poor mosaic floor. It has not yet been cleared so we cannot tell whether it was plain white or with a simple allover pattern. In the debris were fragments of the large grayware basins which are so characteristic at Jerash of the last years of the Byzantine period. There were also a few coins and a small iron ring. On a lower level and between this high late room and the long hallway leading north from the Fountain Court are a series of smaller rooms numbered B 26 and B 27. It was in B 26 on the surface that we found a large Corinthian capital which has now been lifted on to the wall. Here again we find in the debris the common grayware with comb decoration. Also water jugs, with spouts, of thin red ware and white decoration. They are usually associated with the grayware. Also a fragment of a thin marble slab with a crudely cut low relief.

*September 19. Saturday.*

Two more rooms in the lower B series have been partly cleared, B 28 and B 29. All producing the gray basins and white decorated jugs. A 51 has now been cleared, but the mosaic floor will not be swept clean ready for photographing until the workmen are through with this area. A flight of steps was excavated several years ago in the north west angle of the Fountain Court. It now seems to lead up to the level of room A 51 and may be its entrance. A few oval lamps, Arabic period, were found with the usual grayware.

*September 21. Monday.*

Fadil is continuing the work in the museum making photographs of all the inscriptions and Mahmud is making a complete set of squeezes which is to include every fragment we can find in the excavations or in the village. In Room A 51 it is now clear that the entrance was at the south end and connected with the flight of steps I mentioned several days ago. There seem to be two layers of mosaic, the lower one only a few centimetres below the later. The latter seems to be of plain white, while in the lower level there is evidence of a red pattern. After we have drawn the room with the upper level the whole of the mosaic will be removed and the earlier one uncovered. The walls of Room A 51 are of re-used stones of all shapes and sizes and include fragments of capitals and moldings.

There may have been a door in the west wall, but later blocked up, and also one in the north end with a low square platform in front of it. Along the east edge of the floor are laid two to three rows of small square stone tiles, probably serving as a border for the earlier lowest mosaic. At the south west corner of the room and lower than the earlier lowest mosaic level, is a wall of fine masonry. I am hoping that under this room some of the finer earlier buildings will be preserved.

Of the smaller B series rooms all have been cleared except the last two at the north end, B 28 and B 30. These rooms open on the long corridor and the three which are cleared have floors of building stone. On the west wall of B 27 are remains of white plaster, one thin layer only. Several of the rooms have small division walls forming supports for benches. Under the west wall of B 29 courses of stones which project inside the room suggest portions of earlier walls. The only object of interest outside of the usual quantity of gray wares was a tiny jar of faience with three small knob handles.

*September 22. Tuesday.*

Room B 28 has now been excavated below its stone floor. An earlier wall extending east and west, of poor construction, lies below it. This rests on broken rock. In B 29 a small cutting was made reaching rock about 1 metre below the slab floor. A new Room B 31 was started west of B 28 and B 30. It has a small door opening on Museum Street with the sill some distance above the street level. The front half of a human skull was found in front of the door.

*September 23. Wednesday.*

In Room A 51 the upper mosaic floor had been smeared over in Arab times with a thin hard layer of gray cement, which completely hides its pattern. I had at first thought it would be of plain white mosaic with tesserae of the large size characteristic of the later period. However to make sure we scraped off a small portion in the centre of the room where the tesserae lay in a circle. This soon developed into a circular panel with an inscription in black. The surrounding field was laid with the usual diaper in red. Two boys were set to work with stones and water scraping off the cement. The circular inscription will be complete except for the opening line, where a name may be. The whole scheme is like the floor found in Room A 2 west of the Church of St. Theodore. The inscription will be lifted and enough of the field or border to give the whole scheme of the mosaic.

In the space A 52 joining this room to the west were fragments of two small

fluted columns like the six found in the debris over the Cathedral staircase. Later in the day two small bases were found in place and a third under the wall between Room 51 and 52. These are of exceptionally beautiful work and the members of the bases are decorated with fine bead and reed motives above which is a band of leaves. We lifted the columns on to the bases not only to get them out of the way but to make a very easy restoration of this court. They seem to belong to a small colonnade in an Atrium to which the mosaic room belongs. In the debris near the columns were two pieces of a long architrave with a Greek inscription.\*

There is an open loggia just to the north facing on Museum Street, and I think all these features will ultimately connect as parts of one large building. The main entrance was from the street and a small door at the south end of A 51 was an entrance connecting with the churches. The row of rooms B 26 to 30 was a row of small shops opening on the north entrance to the church and they also served as a foundation for a row of rooms on the mosaic level of the house. Along Museum Street we now have rooms B 31 and B 32. The former which adjoined B 28 and 30 has an earth floor on the level with its door sill. At the south end two rows of the stones of walls cross above its floor level. The one nearest the south wall looks like a rough canal and connects with a small slot in the west wall, although there is no corresponding opening in the east wall. The other room has a floor of large stone slabs which slopes down towards the south as if they were over an arched space the roof of which has subsided. We are now going down through the earth floor of B 31 until we reach the rock. The doors of rooms B 26 to 30 are being closed up with walls and we shall use them for a much needed dumping place.

*September 24. Thursday.*

In room B 31 a cutting below the floor soon reached the rock so that we are safe in filling them up again without losing any earlier walls. Under the west wall one course of rough masonry may be simply the footing for the wall itself. In B 32, the one with the slab floor sloping down towards the south, there is a door sill left in the W wall. The opening into the street may be later. The south wall is thin and rests on a much thicker wall which separates this room from A 53. In room A 53 the NE angle of an older room appears, slightly different in orientation from the wall above, and still lower there are the large stones of a wall apparently parallel to this early series, i. e. the columned portico which faces Museum Street. The portico has a slab floor extending its whole length, and the columns along the street rest on the usual

\* The inscriptions are reserved for a future publication.

slightly raised row of stones. One wide door from this portico leads into room B 33, which served as the ante-room to the columned Atrium B 51, entering the latter through a similar door placed at the opposite end of the corresponding wall, so that anyone entering the portico did not get a direct view into the Atrium. At the east end a poor late wall cuts off a part to form room B 32.

In the NW corner of the Atrium a cemented pool or cistern, possibly a bath, had been built. Its E wall rests on the stone stylobate supporting the row of fluted columns which it had effectually destroyed. On the surface of the stylobate are very slight markings which indicate the original positions of column bases. In the W wall of the Atrium is a rough door with a semi-circular niche to the N of it. The door when found was blocked up with re-used stones and a deep wide groove had been cut across this, across the niche and partway down the wall south of the door.

The layer of cement has been chipped off the surface of the mosaic inscription, so that it can be read. Only the end of the first line is missing, and even here it may be possible after lifting the floor to determine a few more characters. This inscription is enclosed in a circle of two separated red lines.

I measured up this morning the remaining pieces of the jambs from the two entrances in the passage leading from the Fountain Court. From the fine entrance nearest the Court, there are four blocks of the jambs re-used in the door to the Arab fort in the Artemis temple, and I was anxious to see whether this could be proved. The four additional pieces when arranged in order made two jambs of equal height, or within a few millimeters, which can be corrected when more accurate measurements can be taken on each stone separately. The same is true of the north gate opening on Museum Street. The loose stones just make up two similar jambs. This very clearly proves that we have the materials for a restoration of the original height of both doors. As the two lintels are still lying near by, we could easily re-erect the doors.

Fadil Eff. is making a complete set of photographs of the inscriptions in the Museum, and has also made a number of those still lying outside. Mahmoud is making squeezes of everything, so that we shall have a permanent record of every sort of inscription connected with Jerash. I have designed large cards to hold both a photograph and a hand copy of each. Also number, provenance and description. Hucklesby has carried his survey of the walls now as far as the west side and will in a few days complete the circuit. Several of the corner towers vary considerably and will have to be cleared. He also finds that the North Gate (Damascus) is built with its exterior face not

parallel to the interior, and as he reasonably suggests, this may give us the direction of the road outside the gate. Just west of the gate is another peculiar offset in the wall similar to that adjoining the Zeus temple at the south end of the city. Just what these were is not at present clear. I think that the offset at the south was to enclose an earlier sacred area in connection with the Zeus temple or its predecessor in Hellenistic times. That at the north may have been a fortress to protect the adjacent gate.

William Eff. is adding all the details to the previous plan of the Fountain Court adjoining our new work, and Labib is now plotting in detail the excavations as they proceed. As soon as Fadil makes a photo of the mosaic *in situ*, it will be lifted so that we can clear the earlier layer of mosaics below it.

*September 25. Friday.*

The portico is now clear its whole length. Later walls divide it into rooms B 32 and B 34 and a small one at the extreme W end. A little earth still remains in the letter and in the debris came out half of a small marble statue, possibly a figure from a frieze although the portion found is in whole relief. In the SE angle of room B 34 is a raised ledge nearly square, covered with cement, with a low rounded ledge along the south side. Opposite this along the wall is a single stone channeled to form a water outlet. West of the ante-room B 33 is a smaller room opening from it, with a mosaic floor laid in scale pattern, so far as I can at present trace, of pale greenish marble tesserae. These are laid along the edge of a line of slabs which are grooved like those carrying the chancel railings in our churches. The later walls partly conceal the scheme. In the Atrium court A 52 a portion of the original slab floor remains and to the west of the fluted columns is a square of pavement laid with small square stone tiles placed diagonally within a stone border. In the centre of this pavement is a slightly sunken space to receive the base of a pedestal or statue. It is a great pity that the later crude water basin has destroyed so much of the original plan here. To the south of the paved floor is a small area of plain white tesserae of large size and plainly later than the main building floor. We have what appear to be remains of the original antae of the row of columns and these give us space for four columns. As we have one base remaining in a row along the east side corresponding to these, there should have been eight fluted columns in all. Now several years ago there were in the debris over the Cathedral staircase six exactly similar columns found with bases to which they did not belong. I am presuming for the present that these are the six missing columns, taken from this house and re-used in some way in connection with the staircase or more probably for a

room adjoining it. This would solve the problem of the six Corinthian fluted columns that seemed so out of place on the staircase.

It is certain now that the little niche in the west wall of the Atrium was cut later, and in its turn was destroyed by the deep groove I mentioned yesterday. Work is now proceeding along both sides of the head of our railway. To the south we have a curious large square room the floor of which is below the Atrium court. It was paved with brick tiles and was a furnace, with the secondary floor supported on piers of square or round clay tiles; it is like the ovens we found in the houses west of St. Theodore's church but much larger. There are two entrances, one opening on to the mosaic hall just north of St. Theodore, the other opening towards the west, where we have not yet cleared. The heat had badly ruined the large masonry of the older building which surrounded it. For the present we call it a hypocaust belonging to a bath, as it is far too large for a baking oven, and we found a number of the hollow square flue tiles with openings in their sides, well known parts of heating systems.

The weather is decidedly cooler and heavy banks of clouds are collecting in the west.

*September 26. Saturday.*

To the west of the large hypocaust another smaller room B 41 which is much more complete. The floor in the middle has been destroyed but leaving the north and south sides intact. The pillars holding up the upper floor are square tiles throughout. On the floor at the south end is a narrow cemented bath extending the whole width of the chamber. On the west a small arched door leads to another room not yet cleared. So far all these divisions of the bath are built inside the fine masonry of an older structure and the faces of the stones are badly eaten by the heat. In the forenoon Adib and Ilyas went to Jerusalem for the week's supplies. In the end of the afternoon there was a slight shower of rain.

*September 28. Monday.*

Room B 43 at the north end of the portico has been partly cleared. The light railway has been taken up and its loading end laid out about thirty metres further west. Room B 42 is the third room in the series of furnaces and has one small arched door opening into B 41. The lintel of this door is formed of two stones dressed on the under side in the form of a rough arch. The south wall is a thin filling-in wall, built between the end of the small apsidal chapel on the north side of St. Theodore and the north west exterior angle of the older building which has been remodeled as a bath. B 42 has a

flight of steps leading down into it from a door in the western end of its north wall. And there are remains of a narrower flight of steps along its north wall leading up toward the east. Its west wall is again of fine masonry possibly the end of another structure like the one at the east and of the same period.

*September 29. Tuesday.*

The circular panel of the mosaic in Room A 51 has been glued preparatory to lifting it tomorrow. The rest of the upper floor has been removed after we had recorded its extent and its pattern. The lower mosaic at the south end belongs to a small room only and we have its border around two sides. The field is the half circle scale pattern with a little white flower in the centre of each scale. The border is not the usual fret but more of the key pattern. The whole scheme is carried out in red and white tesserac. There was no second level of mosaic under the circular panel. At the north end of A 51 it seemed to have been another small room like that at the south end. Here the field was the red and white diaper pattern like that of the latter floor and it had fragments of a double fret border.

To the west the men are at work cleaning the upper levels of debris. Fadil Eff. has now completed about 80 negatives of inscriptions, only a few of the heavier pieces in the museum remaining to be done. All are beautiful clear reproductions and he has given much care to lighting the surface of each slab so as to bring out every character. Prints of these are now being mounted on the large buff cards which we had specially printed for the inscriptions.

*September 30. Wednesday.*

Several new rooms are developing as we work westward. Room B 43 is a large plaster lined room which may have been the cool water pool of the bath. There is a stone sluice leading into it from the south. Adjoining it on the south is B 39 which is an L-shaped apartment curiously full of water channels. One cuts across it from northwest to southeast with its sides and roof formed of slabs and a smaller channel lies near and parallel to the south wall. The east end of this room has on three sides a ledge of low projecting stone suggesting that it was vaulted. However on part of its north side a veneer of rubble has been built out to the edge of the ledge and its surface plastered. The walls here are all very complicated and not until we have the entire plan mapped out and the levels taken will it be possible to ascertain how much is early and how much is later or how much of the earlier structure has been incorporated in the Bath. Room B 44 which lies still further west has a slab floor

and as it is too large to have been roofed easily doubtless was a court. The work here is proceeding rapidly but we shall have to remove a lot of debris below the floors of all these chambers in order to find if there exist any earlier remains below. Last evening several of the staff worked after dinner mounting photographs and labeling portfolios. Elias is busy every day cleaning coins of which he has a large number from last spring to do in addition to keeping up with our new finds. Most of the coins are very tiny and thin and a small percentage only are legible. Adib and I walked along the Via Antoniniana and made a list of all the inscribed slabs we could see. There must still be many fragments lying over the surface as yet undiscovered; but until we excavate these areas we shall find new inscriptions only by accident.

*October 1. Thursday.*

In Room B 40, which is north of the large hypocaust B 36, is a basin with gray plastering and a ledge about half a metre high on three sides. A small door leads to the hypocaust and a small opening in the north east corner of the room gave an outlet for the surplus water into a canal which follows along the wall of the L-shaped room already mentioned. The floor was paved with slabs over which the plaster probably was spread, although but little of it is now left. On the slab surface were shallow grooves or channels which may have served to drain the floor. If so there would not have been cement all over the floor. On the west a narrow door leads into B 39 which is the L-shaped narrow room. The canal outside this room follows its east and north wall, and then turns out towards the street along the back of the Atrium room. It is built throughout with stone, bottom, sides and cover. The north wall of the L-shaped room B 39 is orientated differently from the other walls and appears to be earlier. The ledge which crowns it has a fine cyma molding which has been replaced where destroyed with plain square blocks. All the exposed masonry of this north wall is well coursed and dressed with slight rough centres and tooled edges. The ledge of the east wall is plain and is built over and against the molded ledge. In the western end of the L there is one small fragment of the plain ledge inside the south east corner corresponding in level to the ledge in the east wing. West of the rooms is a large so-called court B 44 which has in parts remains of a slab floor and in other places, more clearly visible at the north end, a pebble floor. From this court a wide rough ramp along the north side leads up to the level of the rooms further west. Between this court and Museum Street is B 47, a deep rectangular pool with floor and walls coated with cement. Near its west end a rough cross wall resting on debris later divided it into two rooms. Between the east end of the

pool and north of the L of B 39 is B 46, a small room opening from the end of the entrance of the portico. It has a rough stone bench along the east side and one small square recess. Room B 48 is another small room in line with the row of hypocausts and to the west but not connected with them. Parallel to its south side and about one metre from it a rough wall forms a deep pit which was full of blackened earth and a large amount of potsherds, many of them blackened and twisted by heat. Here also the south wall has a plain square ledge along its top. B 45 is another small room opening from the south west corner of court B 44, with a slab floor and a bench along the west wall.

*October 3. Saturday.*

Three new rooms are now appearing in the west. B 50 north of the court is still unfinished. B 49 which adjoins the small chapel north of St. Theodore has a stone pavement like many of the other rooms. B 52 so far as cleared resembles a long corridor extending from north to south for almost the whole width of the area. Near its south end a low rough cross wall resting on debris divided it. In the floor near the top of the ramp leading from the court was a small fragment with a Latin inscription. It is part of a longer inscription. In the surface debris west of this room was found a column drum with an inscription in Latin badly weathered. We have now cleared the floor of B 35 which opens from the west end of the anteroom. On the floor forming three sides of the rectangle are stone slabs with a semicircular groove continuing around their centres. Outside of this are small rectangular sockets for stone or metal uprights. Those at the two western corners are somewhat larger than the others. The north row of stones is not quite straight but curves out slightly at the east end towards the Museum Street. The joints were filled with lead. Inside is a mosaic floor of large white tesserae with a greenish hue laid in the familiar scale pattern. In the centre of each scale is a small conventional red flower. All the mosaic was hidden under a hard thick layer of cement which has to be chipped off slowly by small hammers.

*October 5. Monday.*

Work is proceeding in the western area where we are now beyond the west wall of the bath and a number of small rooms are appearing. We have very small space left for dumping and so are raising the heights of the temple wall south of the colonnade and we can then dump on an area which was cleared last year. This morning Mr. Hucklesby while surveying along the west city wall found two large blocks of a door lintel with part of an inscription. The letters are large and well cut, with two lines on each of the fascias of the

architrave. These blocks were in the opening of the great west gate at the end of the street which starts from the north tetrapylon and passes north of the north theater, or Odeon. We shall have to excavate the gate more fully not only to secure its plan and construction but to find the remainder of the lintel, which as the name of Trajan suggests may lead us to date both gate and wall. Is this the Odeon Gate?

*October 6. Tuesday.*

Below the floor of B 52 is a long fine wall of dressed masonry which runs eastward up to the edge of the late sloping street parallel to the Museum. It is oriented slightly differently from the west wall of the later room. In it lie two large column drums. Its face was plastered. The eastern wall of B 52 is the outside wall of the large pool which was in the north west corner of the baths. Under the court yard already mentioned is an earlier wall which continues on through under the floor of B 52. The new group of buildings now appearing south west is a maze of small chambers opening one from the other and linked with a corridor running north and south. At the south end of the latter is a small door into a small room overlooking the Atrium of St. Theodore. The floor level is some distance above that of the church and no connecting stairway appears. West of the corridor another series of rooms is appearing and the whole group suggests a monastery which we naturally expect to find adjoining the church. Several of the rooms have a row of rough stones along one side. These served as benches or beds.

*October 7. Wednesday.*

In the surface debris just west of B 54 we found a small square altar of limestone. It had the usual saucer top with four small horns and on one side eight lines of inscriptions. The surface was badly weathered and no complete line can be made out. The whole height of the altar was 780 mm. and the main face with the eight lines of inscription was 255 wide and 310 high. Where they are working northward in B 52 the debris was very soft and seemingly late. Possibly a hole was dug here some years ago and has been refilled. On the west side of this cutting is a thick stratum of alternate deposits of limestone chips and earth. These correspond to the layers we found some metres further west last year. This debris rests on the earlier plastered wall below and is under the monastery walls. Fadil is still adding to his negatives of inscriptions as well as general views of the work. Labib is working on the plan of this whole area to a scale of 1 to 100 in which every detail of floor is indicated. William is completing the details of St. Theodore's and we are

cleaning off all floors with mosaics to enable him to record them. Several of the small rooms surrounding the Atrium of the church have fine mosaic floors which were never entered on the former plans. It is worth repeating here that the entire group of buildings extending westward from the main street including the great staircase, the Cathedral and St. Theodore's offers great possibilities for actual reconstruction. In St. Theodore's all the columns of the nave are lying as they fell including the capitals. And all the fragments of the three western entrances exist including the lintels. With proper hoisting apparatus it would be an easy and speedy task to lift them in position. And when finished it would make one of the most complete and imposing monuments in the east.

*October 8. Thursday.*

Room B 52, which as we have already said separates the Baths of Placcus from the monastery group, has proved interesting and puzzling. In following it toward the north to the end of the late sloping street we found a fine flight of steps leading up toward the north and broken off by the retaining wall of the late street. At the foot of the steps is one jamb of a door opening south. The plastered west wall of B 52 likewise continues northward until it is terminated by the street wall. It is difficult to see the purpose of the flight of steps. North of the late street wall is a narrow passage on a lower level which must have been open when the Artemis enclosure was built, as it gives access to a door and flight of steps leading down into the great vault under the south colonnade of the temenos. This passage must have been still in use when the sloping street was filled in and its retaining wall built. Else why the retaining wall? Furthermore there is a short distance to the east a much rougher flight of steps which led from the sloping street level down into the temple period passage. An obvious conclusion is that the fine flight of steps belongs to a building antedating the construction of the Artemis enclosure. Of course, all the constructions to which it may have led were destroyed when the massive Roman work was erected.

The clearance of B 52 has also shown that the large pool belonging to the Placcus Baths (B 43) was built as a separate structure, as we have now uncovered four of the exterior angles and only at the south east corner does its enclosing wall bond in with any other adjacent wall. In B 57 on a low level there had been three divisions, one at least made by the remains of an earlier wall. In the south west corner of this room is a cistern closed with a large circular stone from an oil press. The present opening of the cistern is the square axle hole in the centre of the stone. Two drains run into this cistern

both coming from the south under the sill of the door into B 56. Just inside this door is a large circular basalt millstone and a little further in line with the channel a circular stone mortar. The remainder of the floor of B 56 is the usual rough stone flagging. One of the divisions of B 57 has the familiar stone mastaba along the south side. As this room is on a lower level than any of the other rooms in the group and is entered only through the cistern room one is tempted to regard it as a room in which any monk who needed disciplining was confined. The other room in this group has been numbered B 58. It has nothing of interest but a large stone mortar in one corner. At the western end of B 54 further clearance has disclosed a flight of steps leading down into the Atrium of St. Theodore's to the little anteroom B 66. Near the north end of the east wall of B 59 was a small altar standing on its top and used as a stand or table. This has a seven line inscription.

*October 9. Friday.*

The anteroom B 66 had originally been much longer including B 67 and is divided from it by a very poor thin wall. In B 67 there was also a small narrow door with small steps cutting the rock down to the church level. All this northern side of the Atrium had been partly cut in the rock. In the south west corner was a square hole into a small cave. Two rooms in the south east corner of the monastery have proved of special interest. B 51 in the corner is almost square and its east and south walls of fairly good masonry of various sizes not well coursed and with stone chips used in the joints. It rests on an earlier fine wall. Along the south side are three openings in the rock floor below the level of the late room. Of these the one in the south east corner leads into Cave 6 and today, in the debris from it we found a round gold medallion with a woman's bust in high relief. It is the finest piece of personal ornament we have yet found in Jerash. The middle opening had been filled up with constructional debris, i. e., filled up with earth and stones to make a more solid bed for the later floor above. The third hole, in the southwest corner, leads into Cave 7. Neither cave has been fully cleared. Resting on the rock are traces of a cross wall which divided the room approximately in half, and in the north half are the remains of a plastered basin with a seat on one side and a smaller basin beside it. In the north wall are traces of an earlier opening into B 53 on the north. Near the north east corner of the room is the lower part of a large water jar resting on debris about 40 cms. over the cement basin and marking the level of the later use of the room. In B 53, the adjoining room, we also find evidences of the older door noted in B 51. This had been blocked up to carry the monastery wall above. Here again we

have openings in the rock floor. Along the east side is appearing a wide pit in the rock. B 64 is a small square room opening west of B 59. It had a mosaic floor with a conventional border as in our A 2 of last season and with an all-over pattern of diagonal squares. Part of the mosaic floor had been built across an insufficiently strengthened opening into a cave behind R 11 cleared last year and had crushed through into it. We had noticed then that this cave had an opening in the ceiling but this at the time could not be followed from below. Next to this room was B 63, on the floor of which, in the north east corner, was a heap of jars including several types of the Byzantine period which we can now definitely date together. Such pottery as this aids us materially in establishing our sequences of types. All the jars were crushed but the fragments of each were carefully taken up to the camp and there are being reconstructed for our scale drawing. As usual we also made a photograph of the group in position. Room B 62 was the largest in the monastery and I first supposed it was an open court lighting the surrounding rooms. But further excavation proved this not to be the case. It is curious, however, that we have not the slightest evidence as to how the smaller rooms were lighted. Along the north side the walls are preserved to a height of three to four metres, with not a single definite opening for light or air. Even if there had been any central Atrium or court so many of the rooms open only through another one that they would at best have been but dimly lighted. When we have the complete plan some method of lighting may suggest itself. As yet we have no entrance to the building except the two narrow doors leading into the Atrium of the church. We have not however reached the western limits of the building and there is still the possibility that there was a door opening on the narrow lane which extends along the west angle of St. Theodore. It will be remembered that last year just opposite where we now have the monastery, on the west side of this lane we found the hall of the lesser choir of singers. With the completion of the monastery and its connection with St. Theodore and with the choir hall opposite we shall have a valuable example of the arrangements made for the personnel of a large church of this period.

*October 10. Saturday.*

In the morning I went to Birketein with Fadil Eff. and Mahmoud to make squeezes and photographs of the inscriptions there. Several workmen had been sent earlier in the morning to clear off the long inscription relating to the use of the small theater. When we arrived we found that they had finished this job and had started a little excavation of their own beside a large fallen column lying just east of the pool. It turned out to be a large inscription of ten lines of which unfortunately the first and seventh lines had been deliberately

erased. The remainder of the inscription is badly weathered and our squeezes did not come out very well, but I am hoping that with the squeeze and the photograph enough can be made of it to be useful. In the little tomb of Germanos, the Roman centurion, north of the pool we moved the two pieces of the door lintel so that they could be more easily photographed. This has the inscription given by Lucas (No. 81) but it has been severely wearing off so that a squeeze and a photograph will preserve it. Of this both squeeze and photograph have come out exceedingly well. Fadil Eff. also made views of the tomb and of the masonry of the large pool.

In the excavations B 53 has now been completed so far as uncovering it down to the rock level is concerned. The pit along the east wall simply follows along a rock scarp and the east wall rests on an earlier wall built a short distance outside it. Of this four courses remain. Although this masonry is very massive all the stones are obviously re-used. Some are rough and others have dressed edges. The early wall continues around the north end of the room up to the face of the scarp and the late north wall follows the same line but rests on a layer of very poor rubble and in part on debris. Near the south wall is a square opening in the rock sealed about one metre down with large slabs of stone, resting on ledges. The upper stratum of rock was solid but below poor and full of cracks. The roof of the cave had fallen, and the condition was so bad as to make its clearance dangerous for the workmen. The cave extends to the south, west and north. In the south west corner of the room another square opening is mostly hidden by the later wall. Leading into it is a narrow channel cut in the rock. In B 57 the oil stone has been lifted off disclosing a large circular opening into a bottle-shaped cistern nearly full of hard mud. In B 59 another square opening in the rock floor opens into a small rectangular rock chamber. This also has two rock channels running into it. B 62 which when partly opened I assumed to be an open court now proves to have been roofed in. The roof had been supported on an arch in the centre of the room. Around the walls are three small recesses and it has a door to the west. So we go on digging westward in search of our elusive west entrance to the monastery. Just south of this is B 61 which had first seemed to be a corridor as it was long and narrow and opened into the hall, B 54, connecting with the little doors to the church. It now is seen to have no other exit. In our main hall B 62 the walls had been plastered first with a rough coat of gray, the surface of which was covered with zigzag gashes to hold the finishing coat of white. This plastering belongs to the latest use of the room and stops on the level of slab floor most of which has been carried away. This slab floor rests on a layer 5 to 8 cms. thick of hard beaten earth, in which are

many tesserae, possibly the remains of an earlier floor destroyed when the late one was laid. B 63 adjoins the small mosaic room B 64 and has a floor of earth a few cms. thick over the rock surface. The floor sounds hollow as it is immediately over the construction of the same cave into which part of the mosaic in the adjoining room B 64 has collapsed.

*October 12. Monday.*

In Room B 64 the mosaic fragments found in the north east corner turn out not to be part of a mosaic floor but a mass of loose tesserae thrown in to make a solid bed for the earth floor. So we have but one level of floor and not the two I mentioned. Below this room the rock surface slopes down toward the south and is cut very regularly in a series of ledges too good to be ordinary quarrying. As already mentioned the room is divided in half by an arch and in the south west corner of the eastern half is a small square pit about 45 cms. deep. On one side are the remains of a ledge to hold covering slab and near one edge is a small square socket. It suggests a small storage place below the floor to contain valuables. If two large copper pots with handles are suggestive, this room was the Refectory. Its size and position also argue such a use. The most interesting evidence for dating the room is the plastering remaining on the walls in the south west corner. Here in the usual Byzantine fashion fragments of pottery were used in the plastering as binding material and the bits found in place were portions of the gray ware basins with combed decorations found in such great numbers at Jerash. These we now know to be characteristic of the later end of the Byzantine period, in the neighbourhood of 600 A. D. In the rock floor in the western half is an elliptical hole not yet fully cleared. It may open into one of the series of caves which seem to have extended under the whole building. Near one edge of the hole there is a worn shallow channel. In Room B 63, while testing the floor which seemed to be rock we did find an L-shaped opening into last year's cave. The arch in B 64 rests on two simple piers with plain levelled caps. The arch was presumably semi-circular. Quite a number of fragments of roof tiles have been found in the monastery rooms. All are of course broken and from the many fragments it is difficult ever to piece together a complete tile. I did manage to get one tile together, measuring 400 x 495 mm. of brownish gray or drab ware. The under side had large diagonal marks made with a finger as if it were intended to be laid in plaster. The tiles all had raised flanges and were made to interlock, with small grooves inside each flange to carry off any water leaking through the joints. Another very different type of tile, unfortunately not complete, was found in the cistern room B 57. This was of much larger

size, at least half a metre long, of a fine hard red ware and much better shaped and finished.

*October 13. Tuesday.*

Nothing of special interest turned up today, as the men are working westward to the edge of the last year's work. Although we seem to be beyond the western limits of the monastery we are still finding rooms which now project into the street along the façade of St. Theodore. We are also working along the north street between the monastery and the Museum as we have not yet determined the connection between the two streets. The mosaic floors of the small rooms surrounding the Atrium of St. Theodore are being cleared and entered on the plan. Nearly every room has a different pattern or a variation of the standard diagonal pattern. They have been designed with a great deal of ingenuity. The collection and the classification of the various patterns will in itself form a useful monograph in our final publication. They can all be approximately dated and will form a sequence of local mosaic technique.

*October 14. Wednesday.*

Our division street B 52 between the baths and the monastery still offers new material. Underneath its hard pebble floor is a fine water channel lined and roofed with stone. This runs north and south along the axis of the passage and about half way of its length branch channels come into it from the east and west. The canal apparently continues north under the early flight of steps. Room B 68 which is the last room to the west of the monastic group had two arches to support the roof. In its south wall are two small niches on one level and a third one near the floor at the south west corner. In the north east corner is a small recess which is partly blocked by a pier of rough stones with two Ionic capitals on top. We are now making an examination of the masonry in the various rooms, and it is quite evident that we have remains of at least three different buildings, both the baths and the monastery being built on the ruins of earlier structures. The walls were utilized as far as possible and often in the later plan were left undisturbed under the floor level. Fadil and Mahmoud went to Suf in the morning to collect all the inscriptions they could find. In an old ruined mosque they found six inscriptions one in Arabic over the door, one small panel in Greek on the wall, another on a column and the other three columns in a row along the axis of the mosque. Of the latter, three have identical Latin inscriptions of C. Claudius Severus. They duplicate one already in the Museum at Jerash, whose provenance so far as I know is unknown. It is unusual to have four similar inscriptions on a row of columns.

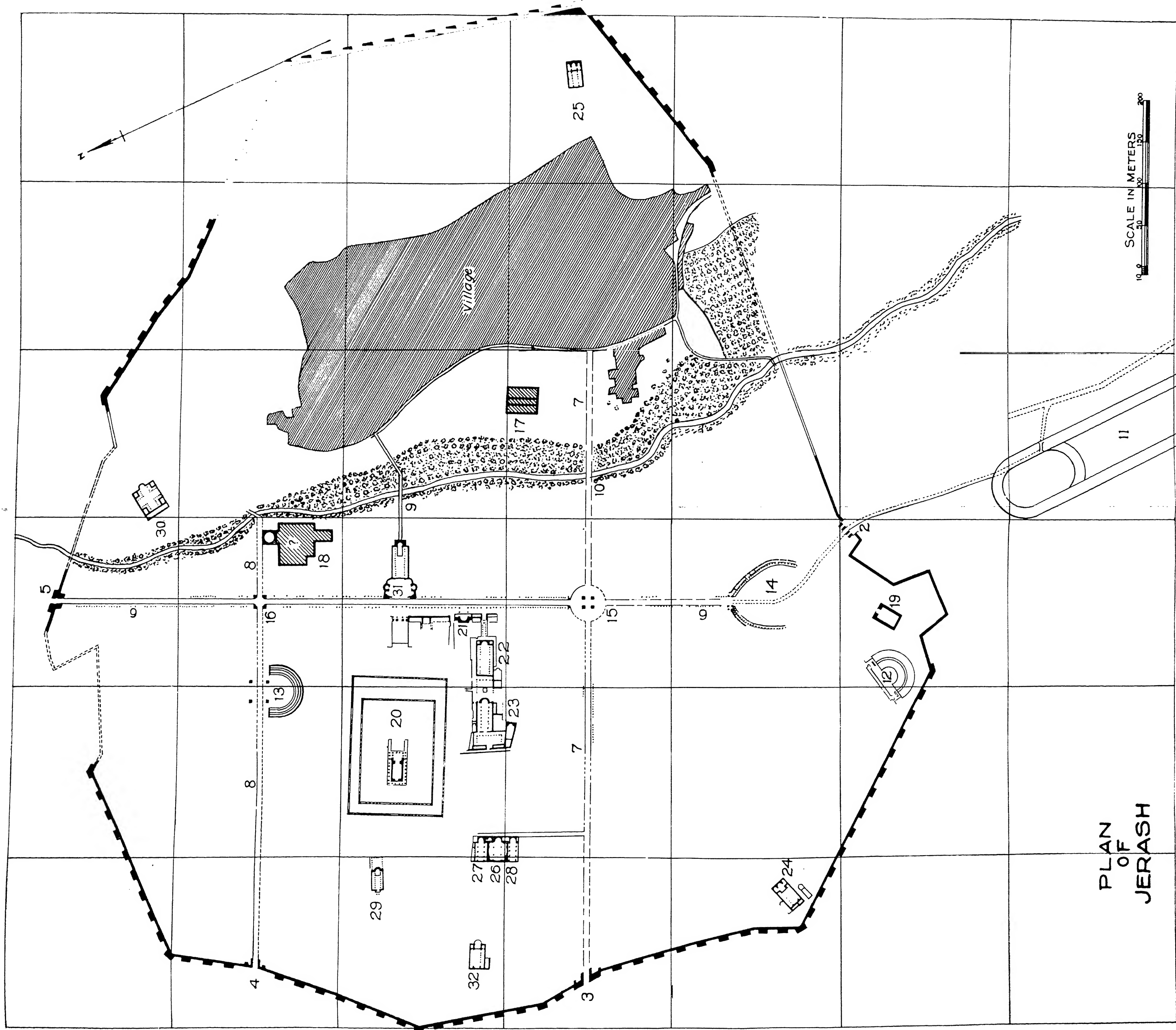
There are probably many other inscriptions in the houses at Suf just as there are at Jerash and for the present we may assume that they were all carried off from the ruins of our city.

*October 15. Thursday.*

The group of rooms at the extreme western end of the area is certainly all outside the limits of the monastery, and cut off all approach to it from that side. In fact the western wall of the monastery is in the form of an L, and the later rooms are built in around it. All of these rooms are on a higher level corresponding in a general way with the upper end of the long sloping street west of St. Theodore's. They completely block the end of this street which extends only so far as the north west corner of the church enclosure. Only two of the new rooms have any special interest. At the north the space between the rear wall of the monastery and the limit of last year's work had apparently been a large water tank as the lower part of the monastery wall has a sloping layer of plaster all along it, extending in either direction under the later walls of the rooms. Extending through this possible basin and resting on debris are several lines of canals. Last year we found a large water conduit almost large enough to squeeze through coming out from under the Artemis south colonnade and sloping down toward the south along what we presumed then to be the line of the Theodore street. We now find the end of this conduit opening into a small vaulted chamber and there definitely stopping. The chamber is plastered and seems to have been a sort of controlling station for the water supply as from it three separate smaller stone built channels start toward the south. The lower leads from the level of the chamber on the west side and parallel to it and about 30 cms. above the floor level is another one, which has its inner end protected by a low wall so water could not flow into it until it had reached a certain level. The third channel is directly above the second one and may have been added later. At the southern end of the group in B 73 one end of the room has been walled off to form a small bath. Its floor and a broad low seat at one end has been lined with re-used marble slabs. The water entered from one of the canals we have just spoken of and left through a small hole at the opposite side. It will be remembered that when excavating the Theodore street last year we found the whole length filled with lines of terra-cotta water pipes at all levels and also open channels belonging to the last period. These all must have run from the water chamber and conduit channel which we have just found, and this in turn must have been connected with the main aqueduct which brought the water from the city supply basin at the Birketein to the Nymphaeum. Below several of the rooms, resting on a low scarp, a fine heavy

wall can be traced extending northward toward the Artemis Temple. We shall try to get as much as this on our plan without destroying the later walls. A few men are busy clearing out the large rock cistern in B 57. The earth from this is all greenish gray in color very different from the usual cistern deposit and this with the absence of pottery points to its having been a cesspool and not a cistern. At the east end of our area another group of men have started below the floor of A 51. Here the earth is a clean brown color with very little pottery. The flight of steps which led from this room down into the Fountain Court has now been very easily explained. The wall which seemed to have closed it now appears to have been an earlier wall and an opening for the steps had been broken through it. A third group of men have been set to work laying the railroad alongside the eastern face of the Artemis east colonnade. Just north of Mr. Horsfield's house is a large break in the Artemis enclosure. Both the east and north retaining walls of the great terrace on which the temple stood are here broken away but whether this corner had fallen or been quarried away for building stones is not clear. There may have been a re-entrant angle at the corner but even of this there is no evidence. We intend to use this space for a dump.





# PLAN OF JERASH

- GATES:--
1. Arch
  2. Philadelphus
  3. Pella
  4. Gadara
  5. Damascus

- SUBURBS, ETC:--
6. Antioch
  7. Pella
  8. Gadara
  14. Forum
  15. South Tetrapylon
  16. North Tetrapylon
  19. Artemis Bridge
  20. Pella Bridge

- TEMPLES:--
11. Hippodrome
  12. North
  13. North
  17. East Bath
  18. West Bath
  21. Nymphaeum
  19. Zeas
  20. Artemis

- CHURCHES:--
22. Cathedral
  23. St. Theodore
  24. St. Peter and St. Paul
  25. Bishop Paul
  26. St. John the Baptist
  27. Damianos
  28. St. George
  29. Church over Synagogue
  30. Propylaea
  31. Propylaea
  32. Genesius





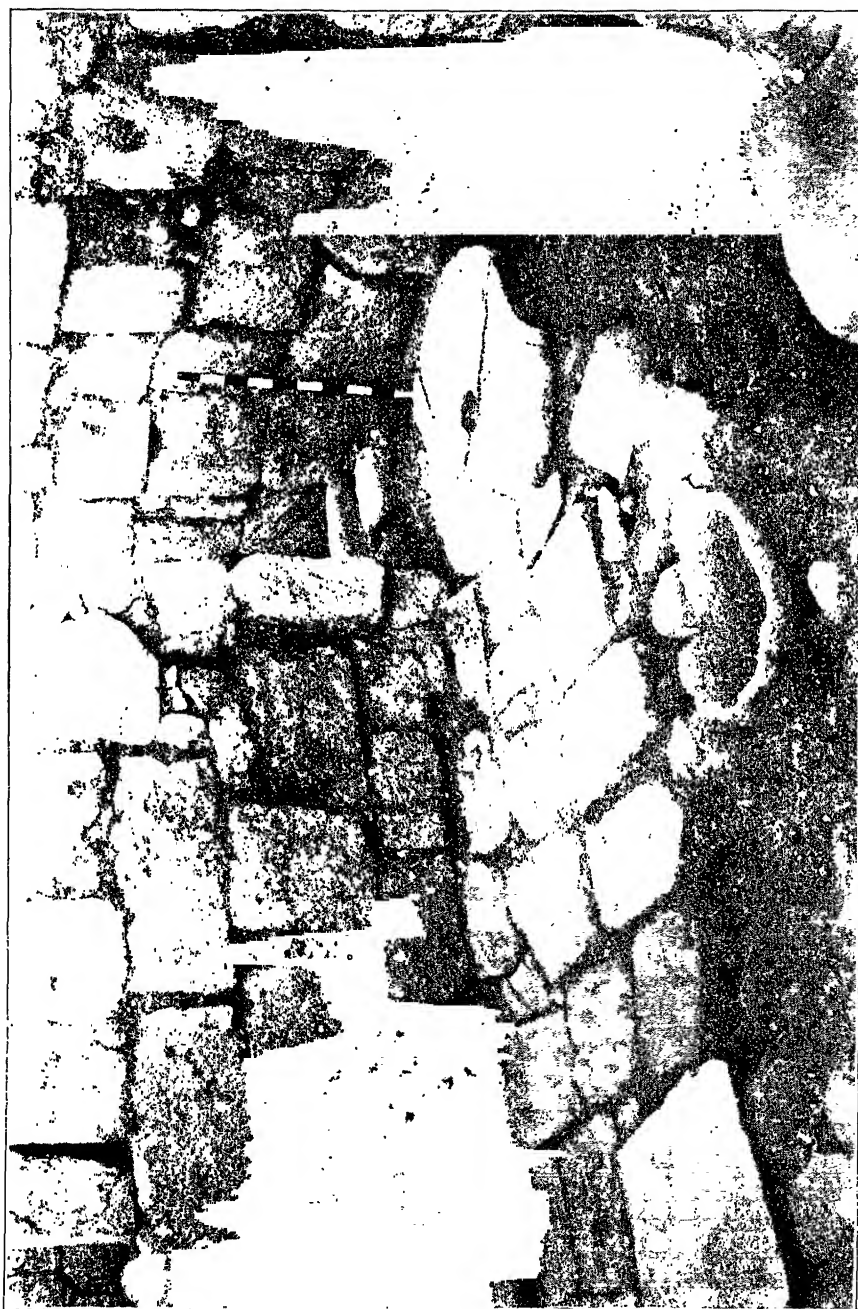
Baths of Placcus. The mosaic in the south room below the later mosaic of Room A 51.



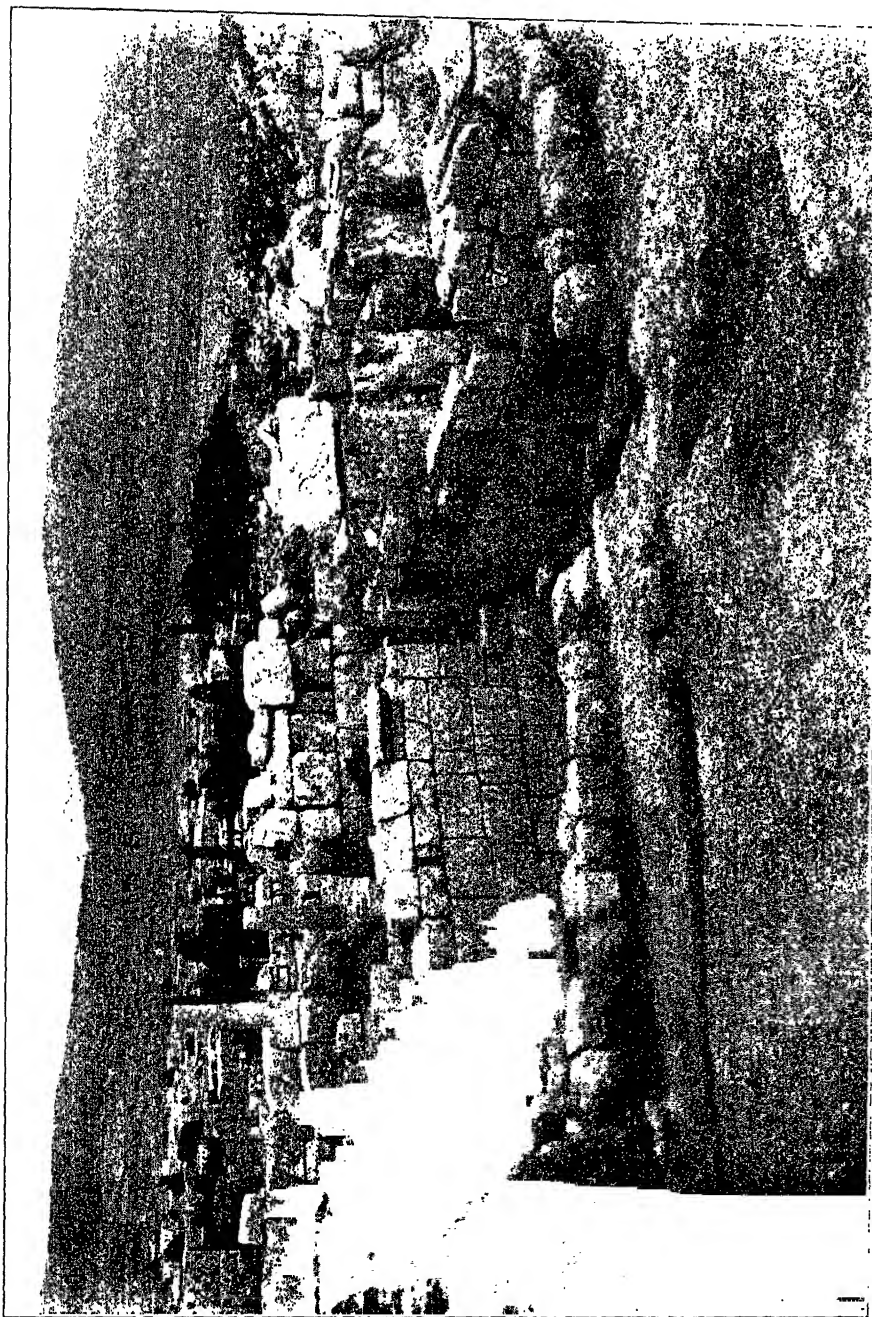
Group of pottery in the corner of one of the monastery rooms.



Baths of Placcus. The pool looking southeast.



Monastery Room B 56 with paved floor. The mortar and millstone in the floor cover a conduit leading into a large cistern beyond the doorway.



The open court in the Baths, probably used for an exercising space. To the right is the Tepidarium. Looking southeast.



Steps at north end of passage separating the Baths of Placcus and the Monastery. Belonging to a structure destroyed when the Artemis enclosure was built, looking northeast.



Baths of Placcus. One of the bath rooms. On right the door from the Atrium. On the left a wide seat. The outlet for the water is in the corner.



Baths of Placcus. The offset from the court, showing the earlier wall with cornice.



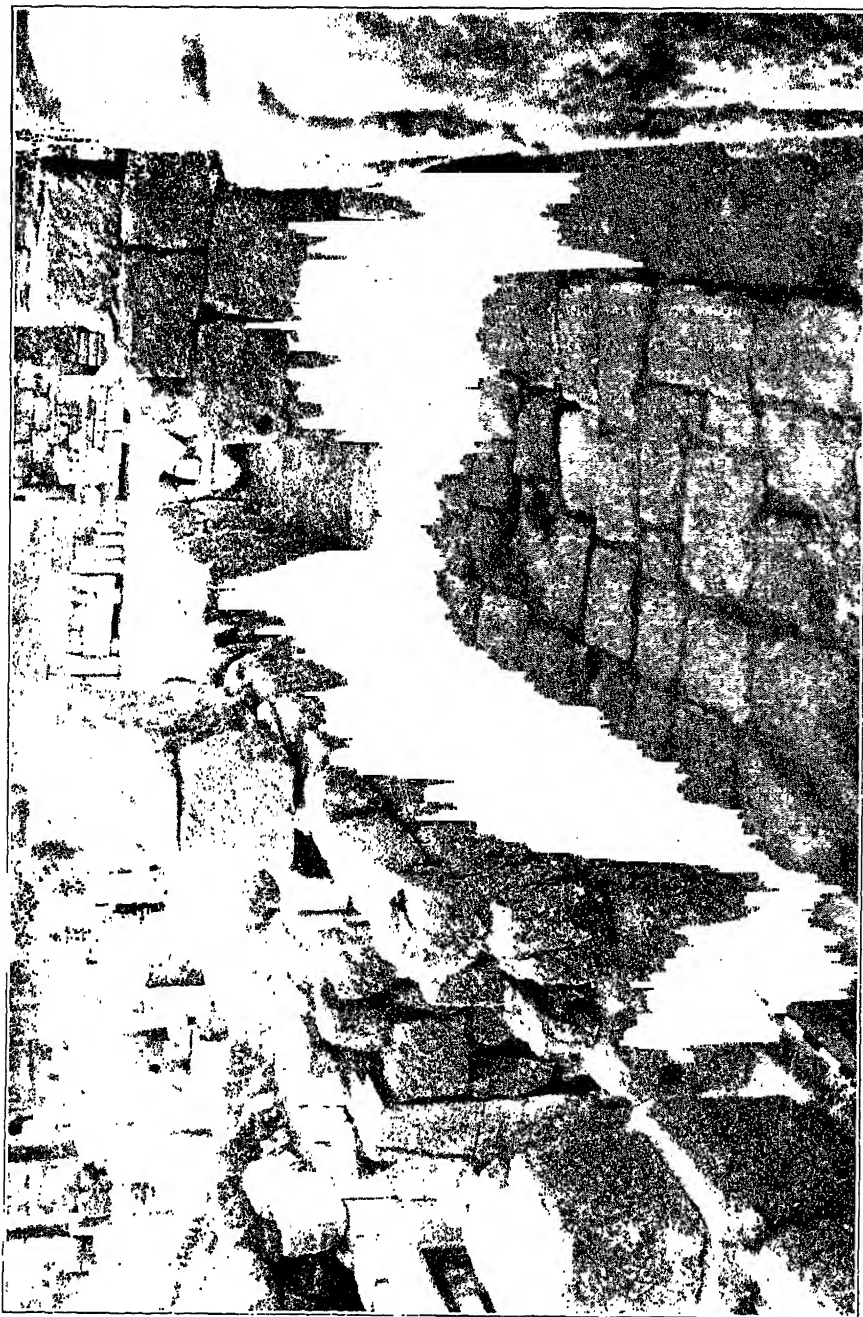
View through the three rooms forming the heating portion of the bath. Nearest is a firing chamber, possibly also forming a wood storage room. Next is the smaller hypocaust and in the background the large hypocaust. Looking S. of E. on 28 September, 1931.



The second hypocaust of the Bath, connected with the main one through a low arched door of brick. In the room the piers at east and west ends are intact, supporting at the west the tile and plaster floor and a long plastered tub or basin. Looking S. E. on 28 September, 1931.



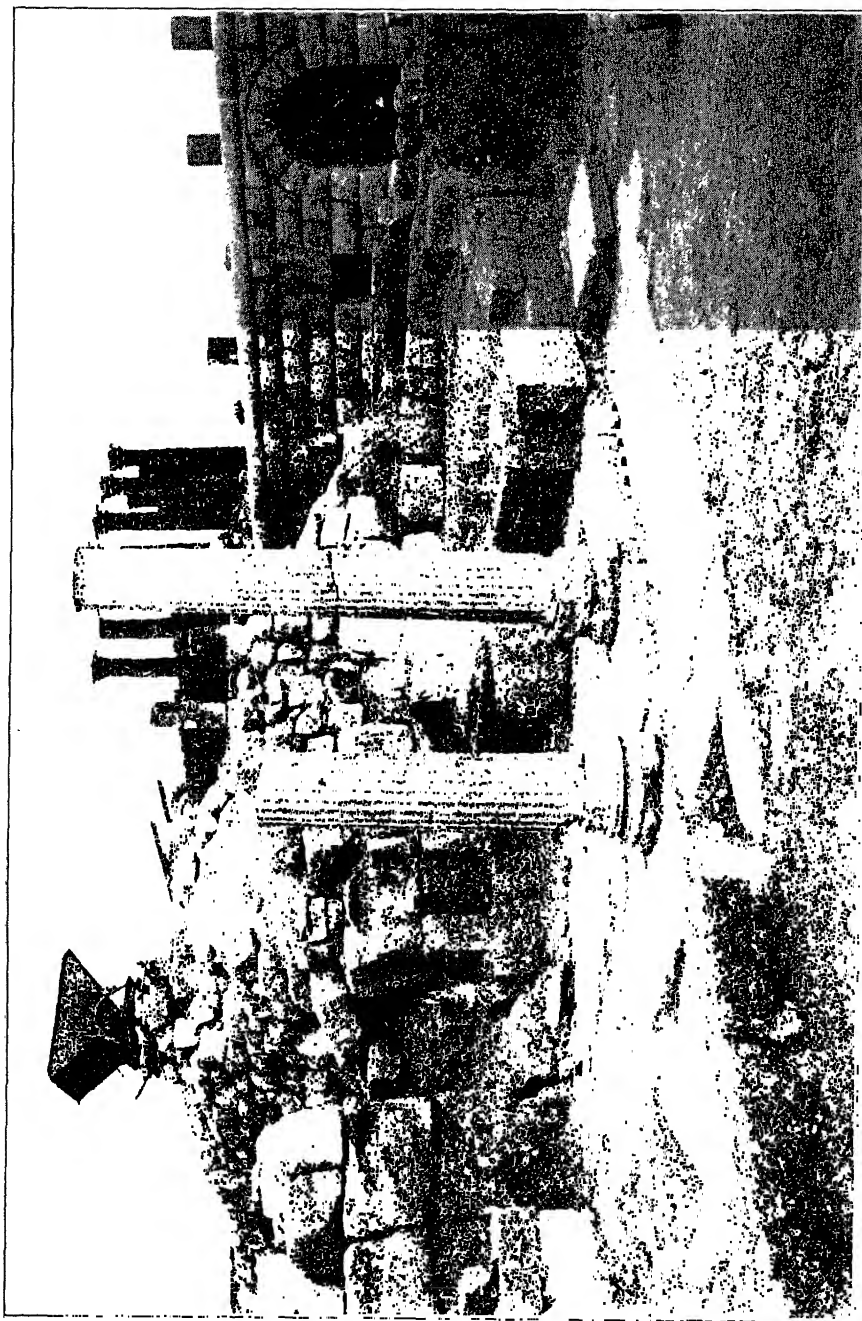
The main hypocaust of the Bath. The lower floor is covered with clay tiles and the upper floor, now entirely missing, was supported in the usual manner on small piers of square and round clay tiles. The opening in the background, for fuel, opens from the mosaic room along the north side of St. Theodore. The walls of this room belong to an earlier building whose lower courses have been badly destroyed by the heat. Looking S. W. on 28 September, 1931.



One of the shops along the west side of the passage between the Fountain Court and Museum Street. All had rough slab floors. These rooms formed the basement for similar rooms on the Bath level above. Looking N. on 24 September, 1931.



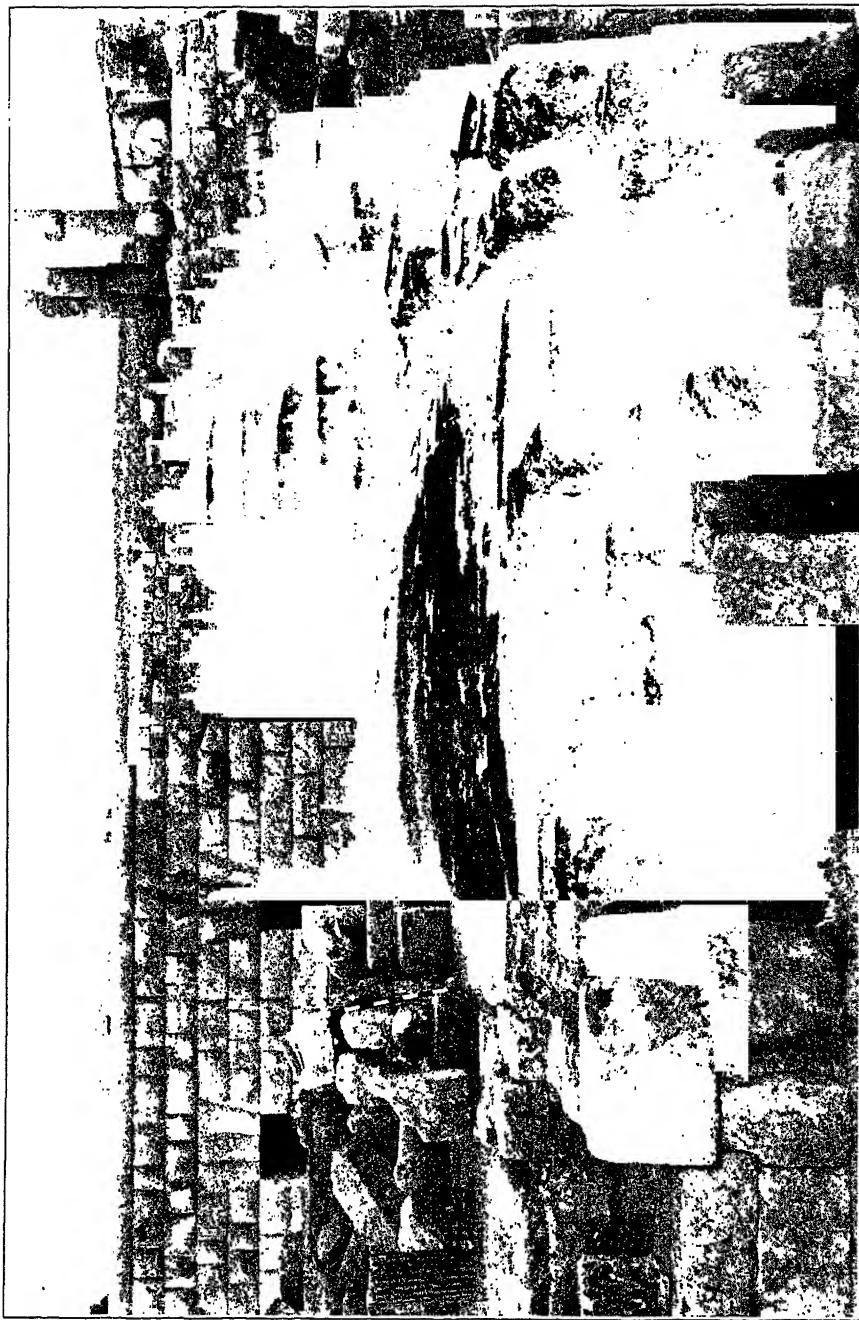
Another view over the Bath, showing from front to back the portico on the street, the anteroom and the Atrium with the mosaic room just to the left of the latter. In the background from left to right are the new Camp house, the Triumphal Arch, the Forum, the Zeus Temple and the Great Theatre. Looking S. on 26 September, 1931.



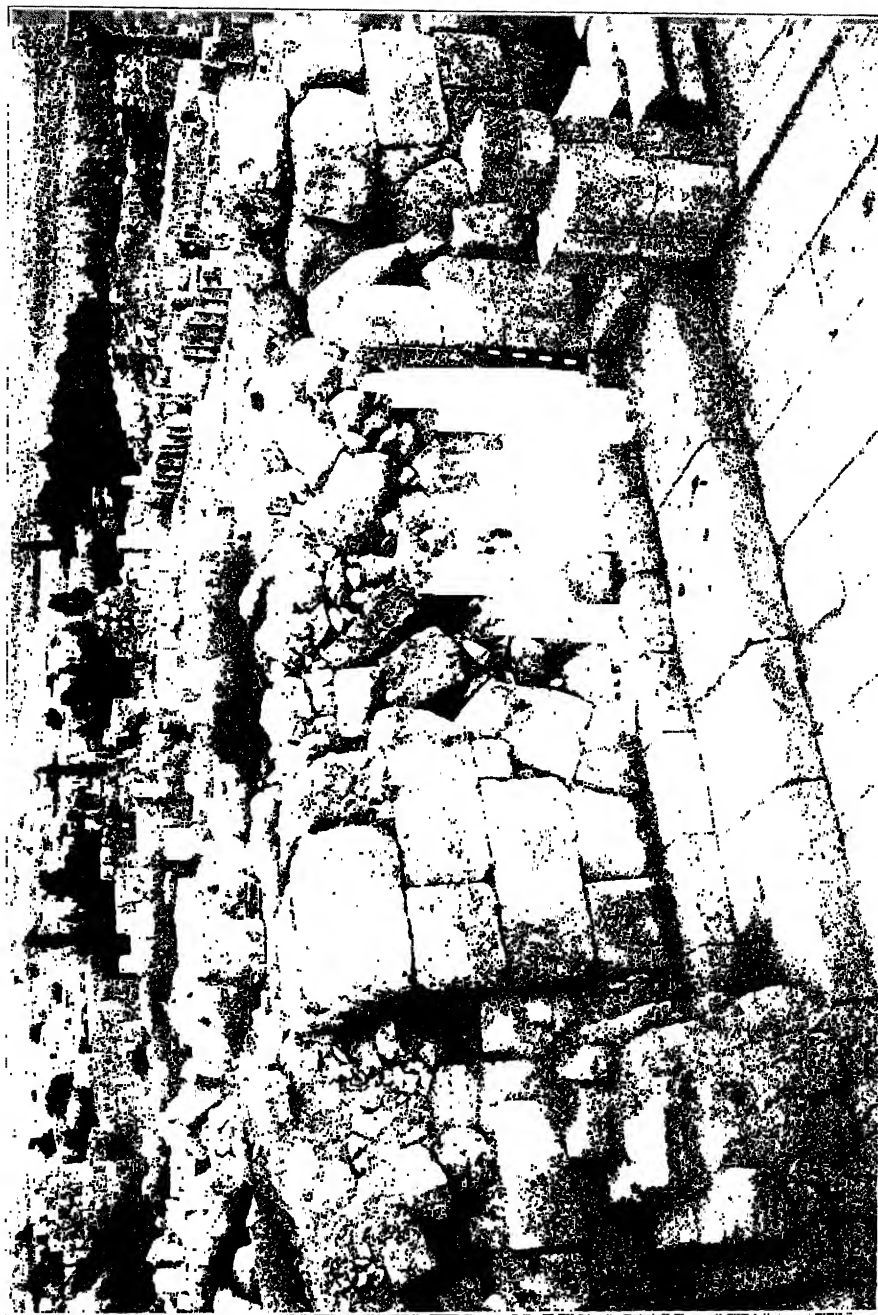
The columns in the Atrium of the Bath. These were found lying in the debris and were re-erected. They have beautifully curved bases, much damaged and probably belonging to the true Roman period and are here re-used. Just behind them is the plaster lined basin which destroyed the N. W. corner of the original plan. In the background is the central building of the Artemis complex. Looking N. on 28 September, 1931.



The Atrium of the Bath, with the mosaic room to the east of it. In the foreground is the entrance portico along Museum street, with the small anteroom between it and the Atrium. Looking W. of S. on 26 September, 1931.



The mosaic pavement of the east room of the Bath, with the small steps connecting the building with the Fountain Court. In the background is the modern museum building, with several columns of the Artemis Colonnade to the right. Looking N. E. on 22 September, 1931.



Remains of Roman archway on the south side of the Fountain Court to Museum Street. At the right is the east jamb of the Sarapion Gate. Behind are the remains of the Cathedral. View looking S. E. on 22 September, 1931.



The passage from the Fountain Court to Museum Street. Along the right is a row of shops forming the sub-structure of the Bath. On the higher level is seen the late mosaic pavement containing the circular inscription recording the building and decoration of the Bath. Below this floor is a second level of mosaic belonging to the earlier structure which was incorporated in the Bath plan. In the rear is the apse of St. Theodore. Looking S. W. on 23 September, 1931.



The great pool at Birketein. Detail of the masonry at the northeast corner.

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